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1st Session

SENATE

REPORT
No. 98-340

WATER RESOURCES DEVELOPMENT ACT OF 1983

REPORT

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

TO ACCOMPANY

S. 1739

together with

ADDITIONAL AND MINORITY VIEWS

NOVEMBER 17 (legislative day, NOVEMBER 14), 1983.—Ordered to be printed

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WATER RESOURCES DEVELOPMENT ACT OF 1983

NOVEMBER 17 (legislative day, NOVEMBER 14), 1983.—Ordered to be printed

Mr. ABDNOR, from the Committee on Environment and Public Works, submitted the following

REPORT

[To accompany S. 1739]

together with

ADDITIONAL AND MINORITY VIEWS

The Committee on Environment and Public Works, to which was referred the bill (S. 1739) to authorize the United States Army Corps of Engineers to construct various projects for improvement to rivers and harbors of the United States, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill (as amended) do pass.

OUTLINE OF THE BILL

Title I establishes ceilings on obligations for the annual construction program of the Army Corps of Engineers.

Title II makes a number of general policy changes in the Federal water resources program.

Title III modifies a number of specific water resources projects.

Title IV establishes a Federal program to assist State dam safety efforts.

Title V creates a new inland waterways program, and authorizes construction of 13 new waterway projects, at a cost of $1.1 billion.

Title VI establishes new cost-sharing procedures for water resources development work.

Title VII authorizes the construction of 96 Corps of Engineers projects, at a Federal cost of approximately $6 billion.

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Title VII establishes a 5-year Federal program of water supply loans.

Title IX establishes a National Water Policy Board to advise the President and Congress on water resources issues.

Title X authorizes a harbor maintenance and improvement program and 22 harbor projects that would be constructed by the Corps of Engineers at a cost of approximately $900,000,000.

General Statement and Discussion of Major Provisions

No major water resources development bill has become law since 1976. On several occasions during the 95th, 96th, and 97th Congresses, the Committee on Environment and Public Works sought to develop and pass omnibus legislation, or major components of such legislation. Dozens of hearings, both in Washington and throughout the Nation, were conducted over that seven-year period. Bills have been reported to the Senate, and in some cases, passed by the Senate. Yet, only one item during that long period (Public Law 95–502 dealing with Locks and Dam 26 and a waterway fuel tax) has become law.

Because of this drought of legislation, S. 1739 is necessarily comprehensive, costly, and controversial. It seeks to bridge a long period of inaction.

To build this bridge, the Committee has developed, and recommends to the Senate, a bill with 10 titles. This bill contains 130 project authorizations, together with a variety of initiatives and reforms that seek to move this important program forward.

These new projects cannot move forward, and should not move forward, in the absence of the reforms contained in this bill. The most important reforms involve new procedures for navigation projects. The bill also establishes new cost-sharing procedures, which set a minimum market-test for the development of most projects.

The following is a discussion of the most significant provisions in this major legislation. This analysis does not address specific projects, which are explained in detail in the section-by-section portion of this report. Rather, this portion of the report describes many of the initiatives and reforms, some of which cut across several titles in the bill.

SPENDING LIMITATIONS

The civil works program of the U.S. Army Corps of Engineers has evolved quite differently from most activities of the Federal government. Congress does not limit, through the authorization process, the annual level of expenditures on construction of projects or their subsequent operations and maintenance.

These levels are set during the appropriations process, when the work to be undertaken is selected from a large pool of authorized activities. Many of these authorizations have existed for decades The current pool of authorized Corps of Engineers construction work which remains to be appropriated totals $43.3 billion.

This bill adds $8 billion in project work to that pool of available authorizations.

Without the several limitations contained in S. 1739, that entire amount, $51.3 billion, is theoretically available to receive appropriations during fiscal year 1985. Obviously, such action would create severe strains on the deficit and the congressional budget process.

While such a sudden infusion of appropriations would be unprecedented—and wholly unrealistic—it remains a legal possibility, absent the constraints contained in this bill, constraints that have not existed in previous omnibus water resources bills.

In the effort to constrain the Corps program in a responsible manner, the Committee has established obligation limitations in three titles of this bill. These are:

Title I sets an overall limitations on the annual construction program of the Corps of Engineers. The annual limitation in fiscal year 1985 is set at $1.5 billion, above the level anticipated in Corps planning.

Title V sets a limitation on the Federal spending on work involving commercial inland navigation: for construction, operations, and maintenance. This limitation of $646,000,000 will begin in fiscal year 1986, and is based on the funds actually expended during fiscal year 1983. It is a level higher than projected by the Corps during the next two years.

Title X establishes a limitation on operations and maintenance of harbor projects of $350,000,000 yearly, some $15,000,000 above the 1983 level.

The bill also contains two provisions to limit the ability of the Army Corps of Engineers to make major alterations in projects without further approval by Congress.

Each project in this bill is authorized at a specific dollar amount, usually based on the date when the estimate was made by the Corps of Engineers. The Corps is authorized to increase spending for the project, but only to cover inflation, based on engineering and other cost indices. In addition, the design of any of several components of a project shall not be increased by more than 25 percent without further congressional approval.

Throughout this bill, specific projects are listed at a specific "Federal cost." Each of those figures is based upon current cost-sharing law. Because this bill imposes new cost-sharing requirements on non-Federal sponsors, the actual Federal expenditures are expected to be somewhat lower.

COST-SHARING

The Corps' civil work program is placing more emphasis on maintenance of existing facilities, rather than the construction of new projects. During fiscal year 1984, maintenance expenditures of the Corps will exceed new construction spending for the first time. Over the past 15 years Corps construction spending has declined, in real terms, by nearly 70 percent.

One reason for this decline is the fact that most of the desirable sites for large scale water resources development have been used. Another major factor is the shrinking percentage of the budget available to non-defense discretionary spending. The pace of new construction, of course, depends on budgetary priorities and constraints.

Setting that reality against the demand for water resource development, the Committee has worked for seven years to develop new approaches to revitalize water resources development. Renewal will not occur without augmenting scarce Federal funds with additional non-Federal money.

A recent study by the Congressional Budget Office identified two essential elements to a new policy: greater non-Federal responsibility for project costs and the implementation of user fees to recover those expenditures that provide direct private benefits. The cost-sharing provisions of this Act—specifically section 233 and titles V, VI, and X—represent a major step toward a greater partnership between Federal and non-Federal interest.

Projects must be planned with greater non-Federal participation than in the past, and the process should focus on priorities to a greater extent.

The General Accounting Office examined the feasibility studies of the Federal water resources agencies to determine how many studies lead to specific projects. Seventy-three percent of project studies completed by the Corps of Engineers concluded that no project was viable. This high rate of failure will be lessened if local interests have a stronger voice in the process, helping to pay the costs and to determine project alternatives and scheduling.

Section 223 establishes a new, two-step planning process. A one-year reconnaisance study, conducted at full Federal expense, would be followed by feasibility studies, for which non-Federal sponsors would contribute 50 percent of the costs.

A major aim of the new cost-sharing rules is to provide a market test for water project development. Title VI includes two sets of requirements intended to ensure that only truly cost-effective projects are pursued. First, non-Federal sponsors must contribute a substantial portion of the project costs. Second, some of the contribution must be made during construction.

The rules incorporate some flexibility by taking into account the potential difficulties faced by very poor communities. Under an ability-to-pay provision, the non-Federal contribution can be reduced under certain circumstances. The criteria for evaluating the ability of a sponsor to pay will be determined by current law or, in the absence of such law, by new rules. Those agencies that establish new rules should include among the criteria such factors as income in relation to need, unemployment, and the sponsor's ability to borrow funds.

Title VI is also flexible with respect to when the non-Federal payments are made. While most types of projects will require some cash contribution during construction, the remainder may be paid over time, with interest.

The new rules specify the total non-Federal share according to project type as follows:

Municipal and industrial water supply: 100 percent;

Recreation: 50 percent;

Beach erosion: 50 percent for publicy owned shores; 100 per cent for privately owned shores;

Flood protection: Lands, easements, and rights of way, or 35 percent, whichever is greater;

Rural drainage: 35 percent; and

Agricultural water supply: 35 percent. Such projects are subject to the Reclamation Reform Act. Agricultural water supply projects under that Act will continue to be repaid 100 percent, without interest.

Contributions of lands, easements, and rights-of-way count toward these percentages.

Except where existing law defines the interest rate to be charged for such repayments, such as in the reclamation program, the interest to be charged will be determined by the Secretary of the Treasury on the basis of the average market yields on outstanding marketable obligations of the United States.

For all the above categories (but excluding hydropower and navigation), the sponsor must provide at least 5 percent of the project cost in cash during construction. The non-Federal obligations for navigation are covered in titles V and X and are discussed separately.

Project sponsors may contribute more than 5 percent of the total project costs during construction if they wish. If non-Federal sponsors of flood control projects contribute 25 percent of the cost during construction, the total non-Federal share is reduced from 35 percent to 25 percent. This provides project sponsors with an incentive to contribute more during the construction period, reducing early budget pressures.

The new cost-sharing requirements do not apply to projects currently under construction, as such projects represent a previous Federal commitment. The sponsors of the 791 Corps projects which are authorized, but on which construction has not begun, have two choices. If a project is started within 10 years, the sponsors must contribute all existing requirements plus 50 percent of the additional requirements of this Act. If the project is started after fiscal year 1994, the sponsors would be required only to meet requirements in place before this Act.

In addition, some states have dedicated large areas of land to the storage of water which yields substantial benefits to other regions. If a previously authorized project is part of a comprehensive river basin development program and is located in such a "donor" state, no new cost-sharing requirements would be imposed. An example of such a program is the Pick-Sloan program for development of the Missouri River basin.

No change is made in two areas of water resource development: the irrigation program of the Bureau of Reclamation, which was reviewed by the 97th Congress when it enacted the Reclamation Reform Act (Public Law 97-293), and the development of hydroelectric power.

NAVIGATION

Controversy over the Nation's water resources policy has delayed the authorization of new navigation improvements, as well as the appropriation of funds for projects already authorized.

Historically, the Federal Government has financed the full cost of constructing, rehabilitating, maintaining, and operating the commercial waterways and ports of the United States.

To meet growing navigation needs, while imposing a reasonable market test on what is clearly commercial development, the bill contains two titles that establish new policy on inland and harbor development. These are discussed separately below.

Under specified constraints, title V authorizes use fees on the inland system. Title X authorizes non-Federal public interests to collect use fees to reimburse themselves for expenses under that title. Neither title mandates use fees.

The constitutionality of such charges has been questioned, as it is argued that such fees represent a tax or a duty. The recovery of costs for inland waterway or port improvements are not a tax, duty, or excise on commerce between States or other nations. The fees contemplated in this legislation are not for the purpose of raising revenue. Rather, they are to pay costs incurred in servicing commerce. The fees offset a service rendered to the vessels. The provision of a channel or a lock by the Corps or another agency is as surely a service rendered to the shipper as pilotage, dockage, wharfage, or the many other services provided to that vessel.

INLAND NAVIGATION

In 1978, Congress enacted Public Law 95-502, legislation that authorized a major improvement at Locks and Dam 26 on the Mississippi River and imposed a fuel tax on the more heavily used commercial waterways. That tax, currently 8 cents per gallon of fuel, returns to the Treasury about $50,000,000 yearly. It is unrelated to expenditures. The direct Corps of Engineers expenditures on the commercial components of the inland waterways during fiscal year 1983 totalled $646,000,000. Thus, the fuel tax recovered less than 10 percent of annual expenditures by the Corps of Engineers.

A variety of studies indicate that the United States is falling behind in rehabilitating the existing system of inland waterways. In its draft National Waterways Study, the Corps of Engineers concluded that the demands for rehabilitating and modernizing the waterways could prove costly over coming decades. Twenty years from now, 97 inland locks will be at least 50 years old; half of these are used intensively.

According to General J. K. Bratton, Chief of Engineers, 31 locks in the system will "become overly congested or reach their capacity by the year 2003. . . . A total capital investment of between $5.2 billion and $12 billion may be needed by 2003 to rehabilitate and improve the existing system."

This demand occurs at a time when Federal budget constraints will most surely continue. Given the unlikely event that new infusions of Federal revenues will be available to the system, two options exist:

—Sources of non-Federal funds must be found to assist in this needed work, or

—Our Nation will continue to fall behind in meeting the needs of commercial inland navigation.

The first alternative is preferable. Title V provides a fair and balanced program for meeting future needs of the inland waterways of the United States, while providing a market test of priority work.

Earlier this year, the Administration proposed immediate user fees sufficient to recover 70 percent of inland navigation costs. The proposal was introduced as S. 1554. The waterway industry testified against any change in current Federal responsibilities. Its two strongest arguments were these:

(1) The barge industry is currently in a depressed condition and cannot afford to absorb any major imposition of use charges at this time, and

(2) The industry deserves a say in how any such use charges are utilized, if fees are to be paid.

Title V takes these arguments into account while limiting Federal expenditures on the inland system. No use fees would be established, but a mechanism would be put into place to institute fees should they become necessary. The industry would play a strong role in deciding how much money should be spent on the system. The spending levels would, in turn, determine the level of any use fees.

The bill establishes a cap on obligations for the overall system at $646,000,000 per year, beginning in fiscal year 1986. That figure represents total Federal spending in fiscal year 1983 on this program—construction, rehabilitation, operations, and maintenance—as determined by the Congressional Budget Office. The CBO calculation, developed in consultation with the Corps of Engineers, shows that $351,000,000 was spent on construction of the commercial aspects of the inland system, $236,000,000 was spent to maintain those commercial aspects, and $59,000,000 was that portion of the Mississippi River and Tributaries account attributed fairly to commercial navigation. That 1983 total of $646,000,000 compares with $593,000,000 that was appropriated for fiscal year 1984 for these purposes.

The cap would be in place beginning in fiscal year 1986, and would remain in effect through the remainder of the century. Should needs ever exceed that specified figure, due to increased demands or the effects of inflation, then the excess costs would be borne by the direct commercial beneficiaries.

This mechanism assures that any shift toward the use of non-Federal funds will prove gradual, and should be assimilated without strain by the users.

In order to provide users a role in determining the level of spending on the inland system—and the resultant use fees—the bill establishes an Inland Waterways Users Board. The 21-member Board would advise the Corps of Engineers on the spending needs for future years.

This Board is key to the philosophy of the bill. It would be composed of representatives of commercial barge companies, as well as the agricultural community, coal and petroleum shippers, and other industries associated wih commodity shipments dependent on waterways for transportation.

The Board will meet at least annually to make a recommendation on spending levels to the Secretary of the Army. While there is no legal requirement that these recommendations be adopted, it is expected that the Secretary will adopt it for inclusion in the President's Budget for the next fiscal year.

For example, if the Board recommends $646,000,000, or less, the Secretary shall obtain all the needed funds from general revenues and the existing Inland Waterways Trust Fund. If the recommendation is higher, say $696,000,000, the Secretary is authorized to obtain the differential—$50,000,000 in this example—from use charges on the inland system, use charges that would be at the start of the next fiscal year. Those additional funds (the $50,000,000) would be utilized during that fiscal year solely for work on the commercial components of inland system.

According to figures provided by the Corps of Engineers, the cost of the new locks included in this bill, as well as one not yet approved by the Chief of Engineers, is $1.5 billion, including inflation. Spread over a 10-year construction period, the spending peak will occur in fiscal year 1990, when $277,000,000 is required. If that were to occur, together with other work of the system, some direct user contribution would almost certainly prove necessary. But that expense could be lessened, or even avoided, by stretching out the construction period or providing offsetting savings in other areas of the commercial inland program.

Little incentive now exists to use inland maintenance funds very efficiently. The waterways industry generally opposes any reduction in the operation of locks, even on some rarely used waterways. For example, reductions in nighttime operations at some little-used locks might be achieved, with the savings transferred to more cost-effective projects. Such transfers would be encouraged under the provisions of Title V.

The question inevitably arises: How much will this system cost the users? A precise answer cannot be given. How much the users will pay, if anything, depends on the spending recommendation of the Users Board. To reiterate, the users will pay nothing until annual spending exceeds the $646,000,000 cap.

If use charges become necessary, the Users Board would recommend the levels and type of fees to be imposed. For example, the Board could recommend a system-wide charge, or a fee that varies by waterway, or some other type of fee. It is possible that the Users Board would recommend one level of fees on the Mississippi-Ohio-Missouri system, and a different level on the unrelated columbia River system.

The type of fee would be up to the Board. The Secretary would be expected to carry out that recommendation.

Title V also refines the definition of the inland system and breaks out the commercial components of that system. The $646,000,000 limitation, and any use charge, relates only to those features and components of the system that are for commercial navigation. The users should not, and will not, pay costs unrelated to their benefits, such as the flood control components of any inland project.

The spending cap includes expenditures from the existing Inland Waterways Trust Fund, established pursuant to the 1978 Act, as well as general revenues. Today's spending level—and its impact on the deficit—has no bearing on whether that spending comes from general revenues or the Trust Fund. Thus, both sources of revenue must be treated as a whole; any shift from one to the other represents an accounting question.

The Inland Waterways Trust Fund, as established in 1978, is to be used only for construction activities, including replacement of facilities currently in operation. This title does not change the statutory requirement. Funds raised from the fuel tax are not available for routine maintenance or rehabilitation.

Funds should be released automatically from the Trust Fund, pursuant to section 204 of Public Law 95–502, and those funds should be available for obligation by the Secretary under the limitation imposed by section 501 of this Act.

Different portions of the same river system fall within this title and title X. For example, the Mississippi System as far south as Baton Rouge, La., is considered a component of the inland system; below Baton Rouge it would fall under the provisions of title X. That portion of the Columbia River upstream of Bonneville Lock and Dam (including the actual lock and dam) falls under title V, while the navigational work downstream from Bonneville Dam comes under title X.

This bill does not address the inland waterways controlled by the Tennessee Valley Authority. Technical amendments on the Senate floor may be necessary to assure conformity.

HARBORS

The advent of deep-draft vessels demonstrates the economic value of these vessels in moving bulk cargoes. When the United States began to increase its imports of crude oil and petroleum products during the 1970's, the constraints of relatively shallow harbors added to costs. Similarly, as foreign sales of U.S. coal increased, the study of deeper draft U.S. harbors was accelerated. Deeper draft harbors also offer benefits for other bulk commodities, such as grain and ores.

Title X affirms the Federal commitment to our harbors. If this nation is to continue its pre-eminent role in world commerce, a clear Federal policy for the construction and maintenance of harbors is essential.

While it retains the current Federal responsibility for maintenance, title X authorizes a Commission to study cost sharing for maintenance. More significantly, it introduces the concept of cost sharing for the construction of new harbors. While the bill retains the traditional Federal authorizing process for general cargo harbors (those with a depth of 45 feet or less), it establishes new policy for deeper draft harbors, a policy that relies on a market test by the private sector.

During the 97th and 98th Congresses, the Committee considered a variety of harbor policy proposals. These proposals have ranged from no Federal funding to trust funds with entitlements for construction. Alternatives for maintenance have ranged from diverting a portion of customs revenues for harbors work to national uniform or port-specific user fees.

Each of the maintenance funding proposals has been challenged as weighted to favor one type of harbor over another. In some instances the issue is between high maintenance harbors and low maintenance harbors; in others it is between large ports and small ports; in others it is between bulk cargo and containerized cargo

ports. This issue appears unresolvable using information now available. The Commission will evaluate this issue and report to Congress on alternatives for future maintenance cost-sharing. Until a decision is made by Congress, the Corps must limit its annual harbor maintenance spending each year to $350,000,000.

To develop a realistic approach to harbor construction, title X defines two types of harbors: general cargo harbors and deep-draft harbors. General cargo harbors are basically those of 45 feet and shallower depth. Deep-draft harbors are harbors greater than 45 in depth.

General cargo harbors provide the major conduit for the flow of goods abroad, as well as some interstate movements such as petroleum products shipped from the Gulf Coast to the East Coast. The retention of strong Federal support for general cargo harbors remains justified.

Title X retains the current Federal process for authorizing general cargo harbors, with an appropriation of funds for construction. It establishes a 30 percent non-Federal cost share for such construction, to be provided during the period of construction of the harbor.

A separate policy is appropriate for deep-draft harbors. At issue is how to build rapidly those deep draft harbors necessary for international commerce, without spreading limited Federal funds too thinly. Continued use of current policy would produce two detrimental effects.

First, the Federal Coal Export Task Force identified 34 ports as potential sites for major coal export harbors. Other ports believe that they can justify a deep-draft project on the basis of oil and other commodity movements. Under the current authorization and appropriation process, no incentive exists to identify the two or three priority projects for early deep-draft construction.

Second, it is highly unlikely that the Federal Government would finance construction in a timely manner, when most studies estimate the cost of these projects at close to half a billion dollars each.

Consequently, title X provides a new Federal role in improving and maintaining deep-draft harbors. Under the new program, non-Federal interests would pay the full cost of constructing deep-draft harbors. They could either build the project themselves, or request the Corps to construct it, then reimburse the Federal Government during construction.

To assist non-Federal interests, the Federal Government would provide loan guarantees for up to 70 percent of the construction costs, then pay half the incremental maintenance costs of the deep-draft harbor.

This approach will encourage the market place to determine which deep-draft harbors should be constructed. It allows those deep-draft harbors that can obtain financing to be constructed expeditiously, while retaining a substantial Federal role in both the construction and maintenance of deep-draft harbors.

Under present law the evaluation of navigation benefits centers on the reduction in the cost of transporting goods. Transportation savings should result from the use of larger vessels, reduction in transit time, lower cargo handling and tug assistance costs, and reduced storage costs. If the Federal Government uses that evalua-

tion to justify a $500,000,000 project to the Congress, a similar analysis should be as compelling to non-Federal financing bodies. Otherwise, the very basis of the Corps' evaluation procedures must be questioned.

As proposed by the Corps of Engineers, each of its three initial deep-draft reports—Norfolk, New Orleans, and Mobile—carried a cost estimated at $500,000,000. Since the discussion of cost-sharing arose, non-Federal interests at each of these ports have begun to consider less costly projects that would achieve a deep-draft capability in a more cost-efficient manner.

This would never have occurred using the traditional approach. This search for cost-effectiveness comes only as it becomes clear that the beneficiaries will need to finance a part of the cost.

DAM SAFETY

Hearings before the Committee have shown the need to augment the program for the safety of non-Federal dams. While this is basically a non-Federal responsibility, a Federal role exists. The National Dam Inspection Act of 1972 (Public Law 92-367) recognized this.

The Corps of Engineers' program of inspection, carried out between 1978 and 1981, identified as unsafe approximately one-third of the 9,000 non-Federal dams inspected. Although the criteria by which most of these dams were declared unsafe is somewhat controversial, few have been repaired or modified. This safety problem is compounded by the fact that approximately 1,600 new dams are built yearly, often with little or no state control.

Title IV contains provisions to help and encourage the states to establish programs for the safety of non-Federal dams. It also establishes a Federal Dam Safety Review Board to study the need for Federal funding for non-Federal dam repair, and it finances a program of research into innovative dam safety inspection techniques.

WATER SUPPLY LOANS

Municipal water supply systems throughout the United States face increasing problems. The problem manifests itself in several ways; the most obvious is the deterioriation of water distribution systems serving older cities. In some cities, many water mains date to the 19th century. This deterioriation involves high rates of leakage and frequent water main breaks, producing dislocation and financial loss. Many communities lack adequate drinking water quality, and must either improve their treatment capabilities or obtain new sources of water. In some areas, increasing demand will necessitate the expansion of distribution systems or the development of new sources.

The Congressional Budget Office recently estimated that a capital investment of up to $9 billion per year is required to address these water supply problems. Yet many water utilities face financial difficulties and have deferred the maintenance and conservation measures which would prove cost-effective in the long-run.

Efforts to conserve water by reducing demand and waste often go hand-in-hand with cost-effective maintenance and rehabilitation. A 1980 study by the General Accounting Office notes that investor-

owned utilities (comprising 27 percent of urban water systems) and other utilities required to be financially self-sufficient pay more attention to reducing demand and leakage. This highlights the cost-effectiveness of conservation. It is desirable in the long run to use existing supplies as efficiently as possible, so that the economic and environmental costs of developing new supplies are borne only when absolutely necessary.

Federal involvement in municipal water supply has been limited. The total Federal expenditure in 1982 for municipal water projects was $900,000,000, compared to $11.6 billion in non-Federal spending, most of which went to operations. The relatively low level of Federal spending is targeted mainly to rural areas in the form of Farmers Home Administration loans and community development block grants.

The Water Supply Act of 1958 is the only generic water supply law. Federal support is provided only for multiple purpose reservoir projects, which have municipal and industrial water supply as one of several project purposes. The 1958 Act requires non-Federal interests to pay the water supply costs and interest over a period of 50 years from the time the project begins full operation.

Single purpose water supply is an equally legitimate Federal purpose. There is no logical distinction between Federal aid for single purpose water supply and the Federal financing provided for other revenue producing water uses such as irrigation and hydropower. Title VIII establishes the Federal role in single purpose water supply by authorizing the Corps of Engineers to provide loans to water utilities.

Yet to participate under this Act, certain conditions must be met. Water utilities should implement effective conservation programs aimed at reducing demand and waste. Any Federal aid provided should be paid back in full with interest.

The loans should be directed toward systems that have no alternative means of financing. Two purposes receive priority: first, any improvement or expansion needed to provide a community with adequate quality water (as defined by standards under the Safe Drinking Water Act), and, second, rehabilitation of existing systems accompanied by conservation programs. Other purposes, such as expansion of water supply systems for reasons not related to water quality, are eligible but do not fall within the primary focus of this title.

Each State is guaranteed a minimum funding level dependent on its population, and the uses of the money will undoubtedly vary by State. The loans should be equitably distributed among the States, with need taken into account and balancing large projects in major cities with less ambitious projects in smaller communities.

The terms of the loans are similar to the cost-sharing provisions of title VI, which allows most of the non-Federal share to be paid back with interest over a period of 30 to 50 years. The program is intended primarily as a source of capital for systems that would otherwise have difficulty raising capital. Some subsidized loans repayable under the terms of the Water Supply Act of 1958 will be allowed by this title under special circumstances. These circumstances include urgent rehabilitation needs combined with an inability to pay the full cost.

WATER RESOURCE PLANNING

The need for water resource planning is widely accepted. As the Federal Government becomes more selective in its investments in water resource projects, the importance of planning increases. However, there has been extensive debate on who should do the planning.

The Water Resource Planning Act of 1965 (Public Law 89-80) initiated an expanded Federal planning effort by creating a new agency, the Water Resource Council. The Council was composed of the heads of several Federal agencies, with the Secretary of the Interior serving as Chairman. The Act gave the Council three important responsibilities: the preparation of periodic assessments of national water resource needs; the promulgation of principles, standards and procedures for Federal water planning and project evaluation; and the review of plans drawn up by river basin commissions, which also were created by the Act. The Council carried out these functions until recently.

Perhaps the Council's greatest effect on water resource planning lay in its promulgation of the Principles and Standards (P&S) governing the methods used by Federal agencies. The P&S specified the objectives to be used in deciding between alternative plans and the methods by which the costs and benefits attributable to each objective would be assessed.

There is currently no agency with the authority and ability to coordinate Federal water policy. The Water Resource Council has not been funded in recent years. The Administration organized a new Office of Water Policy within the Interior Department. However, the role of this office in coordinating Federal policy was never defined, and Congress appropriated no money for it in the fiscal year 1984. Cost-benefit analysis and other aspects of planning are currently governed by non-binding principles and guidelines.

Title IX fills that void and creates, within the Executive Branch, a more effective mechanism for policy coordination. This title draws on the concepts of the 1965 Act, but avoids the pitfalls that have emerged since the enactment of that legislation. The Board will report to Congress as well as to the President. Unlike the Council, the Board will not be chaired by a representative of a Federal agency. The new Board should have an independent chairman and should, as the Council did, have rulemaking authority.

Creation of a State Advisory Committee represents another important feature. The Water Resource Council was widely viewed as insufficiently responsive to State needs. For example, many State and local planners did not find its national assessments useful. The new State Committee would provide a mechanism for States to participate in policy coordination throughout the process, instead of reacting to finished products. It will embrace regional viewpoints on water policy. The State Committee will review the activities of the Board, then make recommendations for more effective procedures.

Title IX also calls for uniform planning standards, requiring consideration of economic and environmental impacts. This title affirms national economic development and environmental quality as objectives of water resources planning, and requires two cost-bene-

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fit accounts. Additional accounts, such as regional economic development and loss of life, are not mandated, although the Board would have the option of adding more accounts. Environmental benefits and costs will often not be quantifiable in dollar terms, but they must be described.

These changes are an inducement to improved planning, not an impediment to water resource development. Careful planning and rigorous analysis have never blocked the construction of a meritorious water project.

Section-by-Section Analysis

TITLE I

This title limits the amount of money the Secretary of the Army, in the civil works functions of the Army Corps of Engineers, can obligate for the Corps' two construction accounts. The limitations are $1.5 billion in fiscal year 1985; $1.6 billion in each of the fiscal years 1986 and 1987; and $1.7 billion in each of the fiscal years 1988 and 1989.

A primary purpose of S. 1739 is to revitalize and reform the water resources program of the Corps of Engineers. This goal must be accomplished at no increase in the Federal deficit. While S. 1739 authorizes construction of projects with a total Federal cost exceeding $8 billion, this title will limit annual expenditures for new construction as well as ongoing construction work on ports, inland waterways, flood control, hydroelectric power, beach erosion control, recreation, and other types of projects.

This ceiling, as with others in this bill, is not a spending authority. It is subject to appropriations acts.

Presently, the Corps is authorized to award multi-year construction contracts. In these contracts, only the spending during the first year of the contract is considered as obligated to be spent during that first year. Title I exempts the out-years of such contracts; they would be covered annually as they come due. The Corps also contracts, and is reimbursed for, work it undertakes for other Federal Agencies. It also receives payments during construction from local project sponsors. This title exempts from the ceiling any amounts obligated by the Corps against payments by other Federal Agencies and local project sponsors.

TITLE II

This title contains generic provisions that seek to direct a more efficient operation, management, and development in the programs of the Corps of Engineers, as well as, in some instances, the Soil Conservation Service.

Section 201

Occasionally the Corps has constructed flood control projects that produced major windfall benefits to individual landowners. This section is designed to assure that such projects are truly "public" in nature and, to the extent that they are not, that landowners who receive a large share of the benefits pay a portion of those benefits.

Under this section, any landowner who will receive more than 10 percent of the flood control benefits of a Corps of Engineers water resources project must contribute 50 percent of the costs allocated to those benefits. Prior to the construction of any such project, the benefiting landowner must enter into a contract with the Corps which requires that that owner pay the required share, either prior to project construction or upon realization of those benefits. When the land is sold, the owner must repay costs associated with those benefits to the Federal Government.

The Corps, in studies initiated subsequent to this Act, is required to include information on the likelihood that any landowner would be subject to this provision.

Section 202

This section pertains to project reports with recreation benefits that are undertaken by the Corps of Engineers, as well as the Soil Conservation Service small watershed project reports that are submitted to the Committee on Environment and Public Works of the Senate and the Committee on Public Works and Transportation of the House of Representatives. These reports must contain information on similar recreation facilities in the project area and the impact of the proposed project on the usage of those facilities.

In the past, recreation benefits for some Corps and SCS projects appear to have been calculated without reflecting existing recreational developments in the vicinity. This section seeks to assure that this will not occur in the future.

It should be noted that this section, as well as sections 205, 206, and 207 involve the work of the Soil Conservation Service. These sections involve only those projects under the jurisdiction of the Senate Committee on Environment and Public Works and the House Committee on Public Works and Transportation. Projects submitted to the Agriculture Committees of the Congress are not affected by this section.

Section 203

The General Accounting Office has estimated that the backlog of authorized Corps of Engineers projects that are incomplete or remain to be initiated totals $35.8 billion for "active" projects, with another $7.5 billion in projects that are "inactive" or "deferred". Active projects are either funded or are ready to be initiated. Inactive and deferred projects require restudy or lack the support of local interests.

Thus, the theoretical pool of authorized Corps construction work totals $43.3 billion.

The General Accounting Office has also critically reviewed the existing Corps project deauthorization procedure authorized in Public Law 93-251. Under this procedure the Chief of Engineers must submit to the Congress an annual list of authorized projects that should not be undertaken.

The Corps has developed an elaborate procedure to prepare its deauthorization lists. The lists are cleared through the Secretary of the Army, then sent to Conress, where projects become deauthorized after 90 days of continuous Congressional session, unless either Public Works Committee of Congress adopts a resolution continu-

ing project authorization. Projects removed from the list may not be reconsidered for deauthorization.

GAO has calculated that between 1977 and November 1981, 453 Corps projects were deauthorized. Of this total, 275 (61 percent) were deauthorized in the first deauthorization report in 1977.

The backlog of Corps projects represents a huge potential cost to the taxpayer. The existence of the backlog adds to the difficulty of authorizing modern, environmentally sound projects.

This section establishes a process to deauthorize automatically any Corps of Engineers project on which construction has not begun within 10 years of its authorization, unless the Chief of Engineers, after consultation with the appropriate State or States, notifies both the House and Senate Public Works Committees that it remains justified. This procedure would become effective one year after enactment.

There are 593 projects, with a cost of $18.3 billion, that have received no funds for 10 years under the terms of this section, and thus would be eligible for deauthorization a year after this bill becomes law.

Section 204

This section is a companion to section 203. It rescinds authority for the Corps of Engineers to conduct project surveys authorized by law or by resolution of either congressional committee on Public Works if no funds have been spent on that survey within five years.

It is estimated that 187 Corps studies would be affected by this section; these are studies which have received no funds since fiscal year 1979. Of this number 120 are described as inactive.

Should the need to address a water resources problem remain strong, either Public Works Committee can pass a resolution authorizing the Corps to study the problem and consider a solution.

The need to perform individual studies has been shown to change with time in many cases. In order to protect the Federal government from performing unneeded water resources project surveys, it would be prudent to require a new congressional action, either by Committee resolution or Act of Congress, for survey authorities unfunded for more than five years.

Section 205

This section affects all future small watershed projects of the Department of Agriculture's Soil Conservation Service submitted to the Senate and House Public Works Committees. Any such project having a Federal cost greater than $10 million, must be authorized by an Act of Congress. Presently, these projects, regardless of cost, are authorized by resolutions of the Senate and House Public Works Committees. Projects with a Federal cost exceeding $10,000,000 are too large to be authorized solely by committee resolution; they deserve the consideration of the full Congress. Requiring such an Act of Congress will help to focus congressional attention on this important program.

Section 206

This section requires that any Soil Conservation Service small watersheds projects submitted to the Senate and House Public Works Committees must have benefits directly related to agriculture that account for at least 20 percent of the project's benefits.

A major intent of Public Law 83-566 was to provide benefits to agriculture and agriculture-related purposes. In a significant number of projects reviewed, agriculture benefits have often been low. At the same time, the SCS has become involved in a few predominantly urban projects which would seem more appropriately to fall within the province of the Corps of Engineers, rather than a primarily agricultural/rural program such as the Public Law 566 program.

In light of the importance of agriculture to the viability of the Nation and its citizens, and in light of the vast unmet needs of this sector of our society, the Public Law 566 small watershed program should retain its primary purpose. The intent of this section is twofold: (1) to insure that agriculture remains an important element of those Public Law 566 projects the Committee reviews, and (2) to discourage the use of this program for primarily urban projects.

Section 207

This section would require the Soil Conservation Service to study the desirability, feasibility, and policy implications of requiring that full public access be provided to any or all water impoundments that have recreation potential and were constructed under the small watersheds program (Public Law 83-566). The Soil Conservation Service is required to report to Congress by April 1985 on the results of this study.

Since the beginning of the program in 1956, almost 8,000 impoundments of various types have been built pursuant to Public Law 83-566. The vast majority of these were built on private land and are unusable by the general public. Yet in some cases, these impoundments provide a Federal investment to construct what amounts to a private recreational lake. While many of these could not be developed for recreation for any number of reasons, such as poor water quality or lack of significant year-round water levels, it is clear that many of these lakes or ponds could become valuable as public recreation resources.

Section 208

This Section authorizes the Corps of Engineers to certify that locally constructed improvements for flood control would be compatible with a Federal project under study, so that local interests may proceed with such work on the understanding that the local improvements will be considered a part of the Federal project for the purposes of benefit-to-cost analysis and subsequent cost-sharing.

This authority was originally granted by the Water Resources Development Act of 1976. It worked as follows: If the local sponsor of a potential Corps flood control project involving, for example, channel and levee work, wishes to go ahead and build the levees at their own expense, they may, under this provision, request that the Corps' district engineer certify that this levee would be a part of a

potential project and compatible with it. If certification is received, local sponsors are guaranteed that their expense in building the levee will be counted towards their required share of the whole project's expenses (subject to title VI of this Act) and will remain part of the project for the purpose of the calculation of the benefit-cost ratio.

This section is meant to apply only at locations where a study authorized by Congress is underway or where the study report has been forwarded for Executive Branch review or for consideration by Congress. This Section would not apply to projects that are authorized prior to the local request.

Except for local engineering work, only local work begun after certification is eligible to be counted for purposes of local cost sharing credit and benefit-cost analysis. Federal credit for the local work will not exceed the Corps of Engineers estimate of the reduction in Federal expenditures resulting from that local work.

The Committee believes that this authority will provide local sponsors more flexibility in meeting their flood control needs while not entailing any increase in Federal responsibility.

Section 209

This section establishes a five year program of research and assistance to local communities for the control of river ice. A total of $5,000,000 for each of five years is authorized for this section.

In the northern regions of the country, many communities suffer from flooding as a result of the buildup of ice dams during the winter and early spring. Ice piles up to impede streamflow, causing flooding and, in many cases, bank erosion. Many communities are unable to adequately prevent or remove these ice dams and consequently incur expensive damages. By expending a relatively small sum on river ice control research, the loaning of equipment, operator assistance, and other technical aid, the Corps can prevent many millions of dollars in flood damages annually.

This section also authorzes $250,000 for a small demonstration project for innovative techniques of river ice control at Hardwick, Vermont. Specifically, the Committee directs the Corps to work with the Town of Hardwick to develop the most effective ice control plan. As part of this authority the Corps should undertake research and monitoring, as well as the development of ice retention devices and the clearing and grading of lands to reduce the ice flooding danger.

The Corps of Engineers is also required to report to the Congress by March 1, 1988, on all activities undertaken pursuant to this section.

Section 210

This section authorizes the Corps of Engineers to provide engineering and technical assistance to local communities for rebuilding or improving former small scale hydroelectric facilities and other industrial sites that have hydroelectric potential. A total of $5 million for each of five years is authorized.

On request of a local government or an electric cooperative, the Corps is directed to provide technical assistance on the design and construction of a project to utilize an existing site for power gen-

eration. Project construction would be carried out at non-Federal cost.

The Corps estimates that there are between 30,000 and 40,000 sites throughout the United States that, by virtue of their design and location, offer viable opportunities to generate hydroelectric power. Local communities and the Nation would profit and become more energy independent by utilizing the energy potential of these facilities.

Section 211

Section 221(b) of Public Law 91-611 prohibits the Corps of Engineers from initiating construction on any water resources development project until the project's non-Federal sponsor agrees to a legally-enforceable written agreement to provide its share of the funding of the project.

This section amends section 221(b) of Public Law 91-611, the Flood Control Act of 1970, to allow a State to enter into a contract for its share of a project's costs within financially obligating future state legislatures. Many States have constitutional prohibitions to the obligation of future revenues. Entering into long-term legally enforceable, binding contracts to pay for their share of Corps of Engineers water resources projects has proved a problem for these States.

While section 211(b) of Public Law 91-611 requires State agencies to commit their State legislatures to appropriate needed future revenues, there is no requirement guaranteeing the same from the Federal Government, since Federal Performance is conditioned on future congressional appropriations. This section alters the language of Section 221 to allow States to enter into contracts with the Corps of Engineers without obligating future revenues.

Section 212

The last planning stage of a Corps of Engineers project study prior to review by the Secretary of the Army is the review by the Chief of Engineers. Before reaching this stage, the project, which has been conceived and approved at the district level, is reviewed by the Division office, the Board of Engineers for Rivers and Harbors or the Mississippi River Commission. Once a project has the approval of the Chief of Engineers, it has been approved at each of the prior stages, and has been found by the Chief to be economically and environmentally sound. Each project report must have a Final Environmental Impact Statement before being signed by the Chief of Engineers.

Only a small percentage of the projects authorized in this Act have not been reviewed by and received a favorable Chief's report. This section is intended to assure that construction can not begin on any of these until they receive positive review by the Chief of Engineers and have consequently been thoroughly reviewed for economic and environmental soundness.

Section 213

Historically, projects of the Corps of Engineers have been authorized with no specific cost limitations. In many instances, significant project cost increases have occurred.

This section limits the sums which can be appropriated for any project in this bill to those costs listed in the bill, plus any incremental increase justified solely by increases in construction or land costs.

By limiting the amount of money that the Corpos can spend on a project, the Committee expects to require the Corps to stay more closely to the project plan authorized by Congress, and refine its initial estimates.

This section, together with section 218 which places limitations on post-authorization changes to physical project features, will serve to assure that the projects actually built closely coincide with the proposals examined and authorized by Congress in this Act.

Section 214

This section prohibits the Corps of Engineers from requiring that non-Federal project sponsors assume the operation and maintenance responsibilities of any of any recreation facility at an existing Corps of Engineers water resources project, as a precondition to construction of new recreation facilities at the project.

Presently, when non-Federal interests wish to add recreation facilities at an existing Corps project, the Corps requires that those interests agree to pay 50 percent of the construction costs, plus all of the cost of operating and maintaining the new facilities. Recently, the Assistant Secretary of the Army has taken the position that, in addition to these requirements, non-Federal interests must agree to take over 100 percent of the operation and maintenance costs at another Crops-operated recreation facility. This provision overrules this Administration interpretation.

Section 215

This provision will provide project sponsors with greater flexibility in meeting the cost-sharing requirements in Title VI of this bill.

This section, which is discretionary, allows the potential sponsors of a water resource development project to create, pursuant to State law, a Federal Project Repayment District with which the Secretary of the Army is authorized to execute a repayment agreement.

The Repayment District would recover funds needed to repay the Federal Government, through the imposition of charges or fees on property sales, leases, or other transactions, at the time revenues (and therefore, economic benefits) are realized by project beneficiaries.

In many cases the construction of a water resource project will cause property values in its vicinity to increase significantly. For example, the value of land that is frequently flooded will often increase greatly once flood frequency and severity is significantly reduced by the construction of a flood control project. Therefore, it is reasonable to assume that an equitable way for a local sponsor of a water resources project to recover its share of the project costs will be by taxing the increases in land and property values associated with the project. This section allows local sponsors, in accordance with state laws, to create such an entity for the purpose of cost recovery.

Section 216

This section assures that all Missouri River projects authorized by this Act are subject to the so-called "O'Mahoney-Milliken" provision of the Flood Control Act of 1944, which states that beneficial consumptive use of Missouri River waters take precedence over navigation uses.

The O'Mahoney-Milliken provision simply guarantees that during times of low water on the Missouri River, consumptive users of the river's water, such as irrigators, certain industries, and municipalities, may continue to use the river's water without fear of legal recourse by navigators, even though the river level may be reduced below minimum levels needed for navigation.

Section 217

This section declares that it is the sense of the Congress that the parties to various lawsuits that have been filed concerning the issuance of Federal permits for the use of Missouri River water in a coal slurry pipeline development should work to conclude such suits as expeditiously as possible consistent with the rights and interests of all the parties, and that all parties to such suits should act in a fair and reasonable manner.

Section 218

This section should be considered together with section 213, involving cost escalation of Corps projects. Section 218 prohibits the Corps from constructing any project that has been authorized by Congress on which, subsequent to that authorization, any of the following project elements or parameters is increased by more than 25 percent: acreage of land acquisition, linear miles of stream channel inundated, housing units displaced, width or depth of navigation channel, hydroelectric generating capacity, or linear miles of stream channelization. In any such case, the increase would have to be constrained, or the project would have to be resubmitted to Congress for a new authorization.

The basic parameters of water resource development projects are presented in considerable detail in the Corps of Engineers feasibility reports, which serve as the basis for most construction authorizations. For the authorization process to retain any meaning, the Corps must proceed "substantially in accordance with, and subject to the conditions recommended by the Chief of Engineers in, the reports," to quote recent water resource development statutes.

The judgment of the Chief of Engineers is essential to maintain a degree of flexibility for large and complex construction projects. Nevertheless, substantial modification of authorized projects, either in scope of in kind, is a judgment most properly reserved to Congress.

It is not the intention of this section 218 to encourage the modification of authorized projects up to the 25 percent threshold. All post-authorization changes must still be supported in the original project authorization and other relevant current law.

Nor is it the intention of this section to preclude minor changes in project design resulting from post-authorization studies and more detailed on-site analysis.

The Secretary may establish by rule a standard for determining de minimus changes that should not be subject to a rigid application of the 25 percent rule. For example, a project authorized on the basis of 40 acres of land acquisition and the displacement of three houses should not require reauthorization if modified to acquire 52 acres and seven houses.

Similarly, changes in the displacement of houses that results from increased building activity totally outside the control or expectation of the Corps would be beyond the intended applicability of this section.

This section does not, of course, apply to projects already under construction, such as the Tennessee-Tombigbee Waterway.

Section 219

This section amends the Water Research and Development Act of 1978 to establish a comprehensive research and development program on the depletion of the Ogallala Aquifer. Grants are available to the six States within the High Plains region—the States of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, and Texas—to perform critical research. The sum of $11,000,000 is authorized annually for five years to carry out this program.

The Ogallala Aquifer is the largest aquifer in the United States and is an important source of water to the six High Plains States. Those six States produce 15 percent of the total national wheat, corn, grain, sorghum and cotton, as well as producing 38 percent of the total value of livestock, a critical part of the national and international agriculture market.

The area is highly dependent upon irrigation to sustain this high level of production. In all, there are 14.3 million acres of irrigated land with over 170,000 irrigation wells. More than 21 million acre-feet of water were pumped from the aquifer in 1980.

Monitoring of the aquifer over past years has revealed that recharge is not keeping pace with the rate at which water is being pumped out of the aquifer. It is estimated that the aquifer is being overdrawn by over 3 million acre-feet annually. Taking into consideration the projected growth in the area, it is clear that action is need now to reverse this serious trend.

This provision responds to the problem by funding critical research and demonstration programs in the High Plains area. The Secretary of the Interior shall establish, within each of the six States, a technical advisory committee whose purpose is to:

1. Review existing State laws and institutions concerning water management to assure the most efficient use of the waters of each State;
2. Establish State priorities for research and development;
3. Provide public information, education, extension, and technical assistance on water conservation and management; and
4. Review applications submitted by institutions of higher education for grants to conduct critical research on the aquifer.

The committee memberships shall include (1) a representative of the Department of Agriculture; (2) a representative of the Department of the Interior; and (3) five representatives appointed by the Governor of the State. The five representatives shall include individuals from State agencies that have jurisdiction over water re-

sources, individuals from the agriculture community, the Director of the State Water Research Institute, or others with special expertise in water resources. The sum of $500,000, to be divided equally among the six States, is authorized each year for the committees' operation.

Research conducted in each State is to be coordinated through the High Plains Study Council. The Council—composed of the Governor of each of the six High Plains States (or his designee), a representative of the Department of Agriculture, and a representative of the Secretary—shall meet periodically to review and coordinate the research activities of the State advisory committees. Such meetings will allow an exchange of information among the six States and should assure that research is not being duplicated by the different States.

Grants for research will be available to institutions of higher education, which include the State Water Research Institutes, within each State. The sum of $6,000,000, to be divided equally among the six States, is authorized annually for research of—

(1) water use efficiency;
(2) cultivation techniques;
(3) irrigation technologies;
(4) water efficient crops; and
(5) water and soil conservation.

The sum of $2,000,000, to be divided equally among the six States, is authorized annually for research in—

(1) precipitation management;
(2) weather modification;
(3) aquifer recharge opportunities;
(4) saline water uses;
(5) desalinization technologies;
(6) salt tolerant crops; and
(7) ground water recovery.

Grants to cover up to 85 percent of the costs of demonstrating new technology are available to farmers. The sum of $2,000,000, to be divided equally amoung the six States, is authorized annually for demonstration projects. Such projects shall demonstrate (1) water-efficient irrigation technologies and practices; (2) soil and water conservation management systems; and (3) the growing and marketing of more water-efficient crops.

In order to continue critical monitoring of the aquifer, $500,000 is authorized annually to the United States Geological Survey, to work in cooperation with the States of the High Plains region.

The Congress shall be kept informed of the progress of the program, through annual reports prepared by the Secretary.

S. 684, the Water Resources Research Act of 1983, has passed the Senate. That legislation repeals the Water Research and Development Act, the Act which this section amends. Therefore, should S. 684 be enacted into law, it is anticipated that a technical amendment will be offered to this section to reflect that enactment.

Section 220

Water conservation and non-structural flood control measures are essential in meeting two water resource problems: increasing demand on limited supplies of water, and the need for relatively

inexpensive and environmentally benign ways to prevent flood damages. The full potential of these water resources strategies has yet to be realized.

This section creates a grant program to be administered by the Corps of Engineers, that will enable States to establish and operate programs to promote water conservation and nonstructural flood control alternatives. For each of five years, $50,000,000 is authorized to be divided equally among the States, plus Puerto Rico and the District of Columbia.

This section is designed to save money by reducing the need for larger, more costly projects. The States should increase the efficiency of water use and nonstructural flood protection efforts in areas where the funds are used.

To qualify for a grant, recipients must establish or upgrade an existing office to promote and publicize a wide variety of water conservation and non-structural flood control techniques. Grant money can not be used for dams, stream channelization, or other structural measures for river control. The Corps is required to report to Congress on activities under this section by October 1, 1987.

Section 221

Increasing scientific evidence indicates that during the next 75 years, global temperatures may significantly increase due to rising levels of carbon dioxide in the atmosphere (caused in large part by the combustion of fossil fuels). Among the very serious consequences associated with such a temperature rise would be a partial melting of the polar ice caps and a resultant gradual rise in sea level.

Such a future scenario would have important and, in some cases, devastating consequences for coastal areas. Many of these areas are presently the object of Corps shoreline erosion studies or are now protected by Corps projects. Since the evidence for a future rise in sea level seems at the present to be sound and since the Federal government and others spend tens of millions of dollars yearly to protect property from shoreline erosion, this problem should be thoroughly examined to study strategies to cope with any eventual rise in sea level.

This section authorizes the Corps, in conjunction with other Federal agencies, to undertake a study of shoreline and beach erosion control policy and problems in view of the possible rise in the sea level. The study should assess the extent of potential coastal inundation, various ways coastal communities might cope with a rise in sea level, and associated legal and institutional problems, and then recommend changes, if any, in the Federal role in shoreline protection projects.

A total of $3,000,000 is authorized for this study, which is to be completed within three years and transmitted to Congress along with supporting documentation and recommendations of the Corps.

Section 222

This section requires that certain Corps projects undergo a review to insure that each project and its individual components are designed in the most cost-effective way possible. This applies only to projects that will cost the Federal government more than

$10,000,000, and on which construction has not begun as of the date this bill becomes law. Construction is determined to begin when construction funds are appropriated. The Corps is required to report to the Congress on the results of these reviews.

In the past it has appeared that certain project designs implemented by the Corps of Engineers have not been the most cost-effective. General Accounting Office studies show a great opportunity for lowering the cost of water resources projects. These studies underscore the importance of making limited resources extend as far as possible and cite engineering reviews as a technique toward such cost cutting. Typical reductions in construction costs that may be attributed to such reviews have been found to range from 3 to 10 percent. This review is intended to ensure not only the most cost savings during construction, but over the life of the project.

While this section requires such reviews to be performed on all projects over $10,000,000 in cost, the Secretary should consider extending this review on smaller projects, when it appears likely to produce substantial savings.

Section 223

The reform of the Corps of Engineers study process represents one of the more potentially fruitful techniques to improve the efficiency and final product of the Corps' water resources program. The present system requires the Corps, upon approval by resolution of either of the public Works Committees of the Congress, to undertake, at full Federal cost, a feasibility study of a problem.

Since studies cost local interests nothing, requests for project studies of uncertain merit are frequently made; limited Corps resources are then expended on such studies that often result in a recommendation that a project is not feasible.

The magnitude of waste involved is evidenced by the fact that only 30 percent of all project studies ever produce a positive recommendation by the Chief of Engineers. The remainder, after the expenditure of varying sums, are terminated at some point in the Corps planning process because they are found unwarranted.

This section establishes for the Corps of Engineers water resources studies a two-step processs: an initial reconaissance study at full Federal expense of a water resources problem, and, if warranted, a full feasibility study that would be performed at 50 percent local sponsor cost and 50 percent Federal cost.

At least one half of the non-Federal share is to be contributed in cash during the study period; any increment of the the remaining non-Federal share can be met by payments-in-kind such as services, materials, or supplies. This section does not apply to inland navigation project studies.

The Corps has recently implemented a two-stage planning process quite similar to this section. In addition to screening out unjustified studies, the Committee intends that the local cost-sharing requirement will result in more significant local sponsor participation in the study outcome and project design.

Section 224

Section 224 defines policy regarding the mitigation of damages to fish and wildlife and the enhancement of fish and wildlife resources at water projects constructed by the Corps of Engineers. Non-Federal interests often are reluctant to support fish and wildlife mitigation efforts once a project is in place. To assure balanced development, this section would achieve several basic goals:

First, in cases of projects authorized by this Act, as well as other authorized projects not yet under construction, necessary mitigation will have to be undertaken prior to project construction, or concurrent with that construction. The Corps shall determine which alternative is appropriate. For the purposes of this requirement, projects where at least 50 percent of the the project lands (other than the mitigation lands) have been acquired are considered to be under construction.

Second, the Secretary is permitted, without further Congressional authorization, to mitigate damage to fish and wildlife for any project under his jurisdiction if the mitigation costs less than $7,500,000 per project. The Secretary may not acquire mitigation lands by condemnation on completed projects, or where 10 percent or more of the physical construction is completed. If mitigation costs exceed $7,500,000, or if the Secretary finds he lacks an automatic authority for work that costs less than $7,500,000, the Secretary must obtain an Act of Congress to proceed.

When dealing with older, completed projects, this section is permissive; it is not mandatory. In addition, the Corps is not expected to alter the design features of a completed project under its authority unless it has been ordered to do so by the Courts.

Third, mitigation costs will be allocated among the project purposes and will be subject to the applicable cost sharing and reimbursement for those purposes. For example, if a project has 50 percent flood control benefits and 50 percent water supply benefits, half of the mitigation costs would be allocated to flood control and half to water supply. However, for those projects where costs are covered by contracts entered into prior to enactment of this Act, these costs shall not be recovered without the consent of the non-Federal interests, or until such contracts are complied with or renegotiated. Except to ensure that mitigation is undertaken on a timely basis, this section does not affect or alter the calculation of benefits and costs or the repayment requirements associated with any project. The cost of mitigation activities is to be treated as occurring at the time the damage would occur, not when the funds are expended under the provisions of this section.

Fourth, future proposals for water resources projects submitted to Congress for authorization must include a recommendation for a specific plan of mitigation, or a determination that the project will have a negligible adverse effect on fish and wildlife. This assures that fish and wildlife mitigation work is coordinated fully and integrated with the project design. This advance planning involves developing a specific plan that sets out needed project features, land acquisition and preparation, operation and maintenance procedures, and any other actions designed to mitigate fish and wildlife losses expected as a result of the project. In all cases, the Secretary

is required to consult with appropriate Federal and non-Federal agencies with jurisdiction over fish, wildlife, natural resources, and environmental matters.

As to fish and wildlife enhancement, this section codifies existing policy for those projects that have enhancement benefits. It provides the following requirements: First, the cost of such enhancement will be a Federal cost when the enhancement provides benefits determined to be national. Examples of national benefits are those involving species that are identified by the National Marine Fisheries Services as of national economic importance, species that are subject to treaties or international convention to which the United States is a party, anadromous fish, or when such enhancement is designed to benefit species that have been listed by the Secretary of the Interior as threatened or endangered under the terms of the Endangered Species Act.

If the benefits are not determined to be national, cost-sharing by the non-Federal interests is required. If the benefits are limited to one State, the non-Federal share is 33⅓ percent; otherwise, it is 25 percent.

Section 225

The nature of rivers and streams produce streambank erosion. The streambank erosion demonstration program authorized by section 32 of the Water Resources Development Act of 1974 proved that cost-effective techniques could control such erosion in many instances.

The Corps has several existing continuing authorities to solve small water resource-related problems. This section provides the Corps with a new small project authority, to plan and construct streambank erosion control projects costing less than $2,000,000, if the work is economically justified and environmentally acceptable. Under this section, non-Federal interests are required to contribute all lands, easements and rights of way necessary for the project. Operation and maintenance of a completed project is the responsibility of the local interest.

The annual authorization for this section is $15,000,000.

Examples of the type of projects that should be considered under this section include the upper Missouri River at many locations in North and South Dakota, where banks have eroded on an average of 8 to 10 feet a year, with serious loss of productive farmland. Similar problems are occurring along the Ohio River where it forms the northern border of West Virginia, particularly in the area of Wheeling and on Wheeling Island. The Committee expects the Corps of Engineers to give initial consideration to these areas as this new authority is implemented.

TITLE III

This title authorizes a variety of specific water resources development work, as well as changes in existing projects under the direction of the Army Corps of Engineers.

Section 301

Section 225 of this bill authorizes a general small project authority for streambank erosion. This section authorizes bank stabilization efforts at three locations with severe erosion: Moundville, Ala.; Fort Toulouse, Ala.; and Tangier Island, Va.

At Moundville, Ala., the Corps is directed to correct serious sloughing and erosion of the left bank of the Black Warrior River. This erosion endangers the structures and cultural resources of the Mound State Park. Correction involves the construction of a dike, and other activities, at a cost of $4,100,000.

The measures to be taken to protect the Fort Toulouse National Historic Landmark are on the Coosa River at its confluence with the Tallapoosa River in Elmore County, Alabama. The Corps is directed to make a 6,900-foot cutoff in the river to isolate the unstable slope and stabilize the bank upstream and downstream of the site. The cost is $15,400,000.

On Tangier Island, Va., erosion is so fast on the western shore that the island's airport, a critical link with the mainland, is likely to become inoperable within 10 years. If the erosion continues unchecked, the island's 800 residents may have to be evacuated. At a cost of $5,400,000 the Corps is directed to build a 8,200-foot long riprap seawall.

Many erosion dangers exist across the nation. Some corrective work has been previously authorized and awaits funding. Projects similar to these, authorized prior to this act are to be given priority consideration in funding.

Section 302

This section authorizes the Corps to relocate the Delaware River dredge disposal site from its present location at Cherry Island at Wilmington, Delaware, to a point between the Wilmington Marine Terminal and Pigeon Point. This relocation will enable the Delaware Solid Waste Authority and the Corps of Engineers to negotiate use of the Cherry Island disposal site for use as a solid waste facility.

Section 303

This section authorizes the Corps to install a set of emergency gates in the conduit of Abiquiu Dam, New Mexico, at a cost of $2,500,000. This will increase the safe operation of the facility.

This project was designed with two sets of emergency gates, standard practice for the Corps. As a cost cutting measure, one set of gates was eliminated during construction. As a result, routine maintenance checks and repairs to the conduit must be performed by special divers using equipment to cover the conduit with a bulkhead at its lakeside entrance. This process is expensive and inefficient. The addition of these gate would increase safe operation of the facility and reduce maintenance costs.

Section 304

This section places areas of the State of New Mexico, now under the responsibility of the Corps district engineers in Sacramento, Calif., and Los Angeles, Calif., under the responsibility of the dis-

trict engineer in Albuquerque, N. Mex. Two western portions of that State must now look to Corps officials hundreds of miles away for water resource planning and assistance, rather than the nearby Albuquerque office. As a result, the water resource needs of those western portions of New Mexico have been largely ignored.

Placing responsibility for most of the state with the Albuquerque district engineer will encourage a more comprehensive statewide approach to its water resource problems.

Section 305

The City of Abberville, South Carolina, currently owns and operates a hydroelectric power plant upstream from the site of the Richard B. Russell Dam, recently completed by the Corps. The lake behind Russell Dam is being filled, and its water level will interfere with the production of power at the Abbeville facility by the spring of 1984.

Re-engineering the power plant was originally thought to be feasible, but is no longer considered economic. The more cost-effective remedy is to provide the City of Abbeville with replacement power, equivalent to that lost, from the Russell project.

This section provides to the City of Abbeville power estimated at $20,000 annually for a period no longer than the remaining service life of the city-owned facility, now estimated at 40 years.

Section 306

This section affects Waterbury Dam in Vermont. The dam was constructed by the Federal government and continues to be owned by the Federal government, although it is operated by non-Federal interests.

The State of Vermont has discovered abnormal leakage in and under the earthfilled dam. This has required the water behind the dam to be drained. This section makes it clear that the needed repairs to the dam, to prevent further leakage, as well as to repair the concrete spillway, is a Federal responsibility. The Corps of Engineers is directed to undertake these repairs as rapidly as possible.

Section 307

This provision eliminates the navigational servitude over portions of the City Waterway in Tacoma, Wash. This action will allow several small boat marinas in the waterway to continue to lease space without the need for certain bonding requirements. Federal control over those portions of the waterway will be ended, eliminating any cloud over the title.

The marinas are operating under permits and leases from the State of Washington, with the State retaining ownership of the bedlands. The State shoreline plan now allows only marinas to be developed in these areas. Should the plan be changed and the bedlands altered with more intensive development, any land-enhancement benefits would accrue to the State as owner of those bedlands.

Section 308

This section authorizes the Corps to spend $500,000 on water resources studies in the Commonwealth of the Northern Mariana Is-

lands and Trust Territory of the Pacific. At the present time the Corps lacks the authority to study water supply, flood control, or other water related problems affecting the islands.

Section 309

This section authorizes the use of water from Belton Lake on the Brazos River in Texas for water supply in addition to its other project purposes.

Section 310

The Pick-Sloan Missouri Basin Program was originally authorized by Section 9 of the Flood Control Act of 1944. The individual units of the P-S MBP constitute elements of a comprehensive, coordinated plan developed by the Corps of Engineers and the Bureau of Reclamation of the Interior Department and approved in the 1944 Act, for the development of the water and related land resources, irrigation and other water development and the generation and marketing of hydroelectric power, spanning in various degrees, the states of the Missouri River basin. Marketing of power generated at both Corps of Engineers and Department of the Interior units of the P-S MBP is governed by the Federal reclamation laws. Because of the transfer to the Department of Energy of the power marketing functions of the Department of the Interior effected by the Department of Energy Organization Act of 1977, marketing of P-S MBP power is now carried on by the Western Area Power Administration of the Department of Energy.

The 1944 authorization of the P-S MBP as a coordinated, comprehensive plan was Congress' response to the urgent petition embodied in a resolution adopted by the governors of eight of the Missouri River basin states meeting at Omaha, Nebraska in April of 1944, under the Chairmanship of South Dakota's Governor Sharpe (the Governor of Iowa was absent at the time of actual vote). In words that have retained their vitality despite the passage of four decades, the Omaha resolution declared:

> 1. That in dealing with matters relating to the waters of the Missouri River Basin it be recognized that we are dealing with one river and one problem.
> 2. That in approaching that problem and in order to serve all the people of the basin to the maximum possible degreed and to safeguard their present established rights and their future development and prosperity, there can be no piecemeal legislative program.
> 3. That there must be an over-all comprehensive plan and suitable legislation adopted by the Congress of the United States which will accomplish that purpose.
>
> House Document 680, 78th Congress, 2d Session.

Individual, unconstructed, or partially constructed units of the P-S MBP have, from time to time, been revised with Congressional approval to reflect changing conditions or more complete data. To assure continuing Congressional oversight and that individual units of P-S MBP not yet undertaken reflect the latest available data and feasibility standards, Congress has, since 1964, required that such individual units be reauthorized as a condition to receiv-

ing appropriations to start actual construction. However, Congress has steadfastly adhered to the concept that the unconstructed units of P–S MBP remain authorized as elements of the plan.

The flood control and navigation benefits of Pick-Sloan have accrued to the lower Missouri River basin and, indeed, as respects flood control, there is an important and beneficial impact over the entire length of the Mississippi from its confluence with the Missouri, near St. Louis, to its mouth. The six massive P–S MBP mainstream storage reservoirs, which provide those downstream benefits, are located in the upper basin states of Montana, North Dakota and South Dakota. They have a combined reservoir capacity of 75 million acre-feet of water, 58,000,000 acre-feet of which is dedicated to flood control. The flood control afforded by these six reservoirs has added 188,000 acres of prime farmland from Sioux City, Iowa south that would otherwise be periodically flooded.

To achieve the 75,000,000 acre-feet of storage provided by the six upper basin dams, over a million and a half acres—including over a half million acres in each of the states of North Dakota, South Dakota, and Montana—much of it prime agricultural lands, have been permanently inundated.

The upper basin reservoirs have been in place and providing flood control and navigation benefits for many years. Development of P–S MBP irrigation, with its consequent benefits to the upper Missouri basin States, has lagged. Only eight percent of the acreage intended to be developed by the P–S MBP in the upper basin States has been achieved. The achievement of P–S MBP benefits is, and for years has been unbalanced. The upper basin States still await the development envisioned for them by Pick-Sloan.

As long ago as 1965, the then Interior and Insular Affairs Committee of the Senate described the 1944 authorization of Pick-Sloan as ". . . assuring the upper basin States that their sacrifice of productive lands to provide benefits for the lower basin would be compensated for by full development of other potentialities in the upper basin States." (S. Rep. 470, 89th Cong., 1st Sess.) Similar views were expressed at the time by the House Committee on Interior and Insular Affairs. (H. Rep. 282, 89th Cong., 1st Sess.) In those two reports, principles of cost recovery and repayment were laid down, and approved by Congress in Public Law 89–108 as an enduring and sound basis upon which the P–S MBP could and would be prosecuted to its ultimate development, thereby enabling the upper basin States to achieve the parity of benefits with the lower basin intended by the P–S MBP.

The Committee is, of course, aware that, for a variety of reasons upper basin development of Pick-Sloan has lagged. Lest this lag be seen as an abandonment of the balanced goals of Pick-Sloan and of its commitment to the upper basin States to achieve ultimate development, the Committee has included section 310. While it changes no laws, it underscores and reaffirms the intent of Congress to see that Pick-Sloan is carried out. The upper basin States continue to await the fulfillment of P–S MBP's promise to them.

Section 311

This section modifies the authorization of the Jackson Hole-Snake River project in Wyoming. Since completion in 1964, the

project has had much higher maintenance costs than were anticipated. This was due to deficient design of the stream riprap. Non-Federal interests have spent $637,000 since 1967 to maintain the project. This section makes the operation and maintenance of the project the responsibility of the Corps, provided the non-Federal interests contribute the initial $35,000 of those costs each year.

Section 312

This section modifies the flood control project at Truth or Consequences, N. Mex. Truth or Consequences experienced significant flooding in 1972, and again in 1976. Another flood poses a serious danger of loss of life. The project, as authorized in 1948, consisted of a series of levees along the Rio Grande. Because of urban development in the area since 1948, that project is no longer feasible.

As a result, the Corps has reformulated the project and determined that the best alternative is the construction of a flood control dam on Cuchillo Negro Creek. This section authorizes this change.

Section 313

Acequias are community irrigation ditches located in the State of New Mexico. Many date back to the 18th century and have historic, as well as economic, significance. However, many of the diversion structures and associated canals of the acequia systems are greatly in need of repair.

This section authorizes $40,000,000, beginning in fiscal year 1985, to enable the Corps to restore acequias in New Mexico. The State of New Mexico, or other non-Federal interest, is required to pay 20 percent of the cost of any work undertaken by this section. Because of the historic and unusual nature of these projects, the traditional requirement for a benefit-to-cost analysis is waived.

In order to further clarify the Federal role, subsection (d) of this section declares that acequia systems are political subdivisions of the State, allowing them to serve as local sponsors of water-related projects of the Corps. This subsection overturns legal opinion of the Corps' General Counsel in 1976 that ruled that Corps authority, under Section 14 of the 1946 Flood Control Act, failed to apply to the repair or rehabilitation of these community ditches.

The Bureau of Reclamation has already provided financial assistance to the acequias indicating Congress in the past has determined they are public entities.

Section 314

The St. John River Basin in Aroostook County, Maine, covers nearly one quarter of the State, and produces 85 percent of the truck crops, principally potatoes, grown in New England. Aroostook County is one of sixteen counties across the nation judged to have the most severe erosion problems and most in need of immediate conservation work. Because of shallow soils, erosion losses in this area of 3 tons or more per acre risks long-term damage to farming operations. Approximately 60 percent of Aroostook County cropland loses in excess of 3 tons per acre per year.

This section authorizes the Corps to implement a program of research described in the report issued by the New England Division

Engineer in May 1980 for the Saint John River Basin. The project is designed to demonstrate sound farming practices. An irrigation system would provide a constant source of water to crops, resulting in increased yields and improved quality of produce. Management practices such as crop rotation will revitalize land and reduce soil erosion. This section authorizes $3,430,000 through fiscal year 1987.

Section 315

This section would make Starr County, Texas, eligible for bank protection under the Act of April 25, 1945. In the fall of 1932 severe flooding of the Rio Grande created extensive damage throughout the lower Rio Grande Valley. As a result, Congress designated the United States section of the International Boundary and Water Commission as the agency to reconstruct and maintain flood control works in Cameron and Hidalgo Counties in Texas. To meet the need to protect the Federal levees against erosion by the river, Congress authorized the Rio Grande Bank Protection Project in 1945. It was limited to Cameron and Hidalgo Counties. Construction of Falcon and Amistad dams upstream on the Rio Grande has further controlled flooding and erosion.

However, Starr County which lies to the north of Hidalgo County and is just south of Falcon Dam must still contend with bank erosion because the Rio San Juan, which enters the Rio Grande in this county, is not controlled effectively in Mexico. This provision would provide equity between Starr County and Hidalgo and Cameron Counties.

Section 316

This section authorizes the Corps to sell and transfer to the local residents and their communities the ownership, operation, and maintenance of townsites at Fort Peck, Mont.; Riverdale, N.D.; and Pickstown, S.D.

These townsites were built by the Corps while it was building the Fort Peck Dam in Montana, the Garrison Dam in North Dakota, and the Fort Randall Dam in South Dakota. These served as project headquarters and housing for construction workers. Each of these townsites has been operated and maintained by the Corps since completion of project construction.

Although greatly diminished in size from the time of project construction, these townsites consist of dwellings that are now rented, at fair market value, by Corps employees and their families, concessionaires furnishing services to residents, and employees of other Federal, State, and local agencies involved in project related activities. In addition, the townsites contain schools, churches, stores, theaters, recreation halls, and similar facilities. It presently costs the Federal Government in excess of $1,200,000 a year to operate and maintain these townsites.

Under the transfer:

Preferential rights would be given to residents and concessionaires to purchase property, as well as to nonresident employees, retirees, and public employees.

Opportunity is provided for financial assistance to the purchaser to obtain loans and other means of facilitating purchase.

Temporary community financial assistance, gradually reduced over a transition period of five years, is provided to enable the town governments to assume gradually full financial responsibility. This will enable the recipients to prepare in an orderly manner for the entire financial burden.

Under this section, the Corps is authorized to sell townsite lands and improvement and to transfer, without cost, municipal facilities to the local government entity. Priorities in offering property for sale are established, giving current townsite residents the first choice in purchasing their homes.

To encourage people to return to these towns, other employees and retirees, not now occupying housing in the townsites, are given a preference to purchase after the current residents have made their decisions.

Finally, residents who choose not to buy, but who wish to lease, have that opportunity under a preferential sale of houses to investors agreeing to lease the houses back to residents.

Once all preferences have been exercised, unsold property would then be offered for sale to the general public. Thereafter, the Secretary would be authorized to transfer, without cost, to the town government any property not purchased under the order outlined, plus any other remaining property within the townsite boundaries.

Section 317

Under the section 314 Clean Lakes program of the Clean Water Act, the Environmental Protection Agency has provided grants to control sediment flowing into Lake Herman, Lake County, S.Dak., and for similar work at Gorton's Pond, Warwick, R.I. Nevertheless, both of these sites continue to suffer siltation problems. The Corps is directed to demonstrate programs for removal of excess silt from Lake Herman, at a cost of $5,000,000, and from Gorton's Pond, at a cost of $730,000.

This section also authorizes a demonstration project for the removal of silt and aquatic growth in Lake Worth, Tarrant County, Texas. Lake Worth is part of an overall flood control system serving the Ft. Worth area. Parts are maintained at Federal expense. The lake is the primary water supply for Carswell Air Force Base, the Dallas-Ft. Worth Airport, and Tarrant County.

Corps of Engineers studies reveal that the flood control capacity of the lake is lessened by the heavy siltation in Lake Worth. The lake's flood control capacity is important, but the lake must also be maintained as a reliable source of water to serve Carswell Air Force Base. This demonstration effort will cost $1,750,000.

Section 318

At a hearing held by the Committee, concerns were raised that potential tidal power development in the Bay of Fundy, Canada, could have adverse effects on the New England coast, from the Gulf of Maine to Boston Harbor, and on fisheries along the Atlantic coast. Some studies suggest that the Minas Basin project, which is being actively considered for construction in Nova Scotia, would change the tidal fluctuation in Portland, Maine, by nearly a foot. Witnesses testified that this could have serious implications for the United States coastal environment, increasing storm damage to

coastal roads and buildings, and alter fisheries and shellfish production.

This section authorizes $10,000,000 to be spent by the Corps on studies, in two phases, of the possible effects in the United States of constructing tidal power projects in the Bay of Fundy, Canada. In phase one, $1,100,000 is authorized through October 1, 1985. If, based on the results of this phase, the Corps recommends further studies, then $8,900,000 is to be available for additional studies through October 1, 1988.

In phase one, the Corps shall determine what changes in tidal ranges in the United States would result from the Canadian project. During phase one, the Corps shall also determine what impacts the projected changes in tidal fluctuations would have on beaches, including beach erosion, and estuarine areas, including salt water intrusion in these areas. Based on findings from phase one studies, the Corps shall identify and conduct any additional studies that might be necessary to determine other impacts on the United States, including environmental, social, and economic ones.

While the Corps has considerable expertise in the field of engineering, Corps expertise in oceanography and marine biological sciences is more limited. Thus, the Corps is directed to conduct studies under this section in consultation with appropriate governmental agencies, as well as the National Academy of Sciences. It is also important that the Corps work closely with other scientists and researchers that are in the forefront of their disciplines. The Corps should award grants or consulting contracts to obtain the best possible information.

To facilitate consultation, the Corps should establish an advisory committee composed of representatives from appropriate governmental agencies, academic institutions, and the private sector. This committee should participate in planning and evaluating studies. The views of the advisory committee, to the extent that they differ from those of the Corps, should be transmitted by the Corps in conjunction with the Corps report to the appropriate Committees of the Congress.

Section 319

This section authorizes a modifciation of the project purposes for Summersville Lake on the Gualey River, W. Va. The change in purpose would add whitewater rafting as a project element, allowing the coordination of releases from the reservoir during autumn draw-downs from the Lake.

The Gauley River is an important whitewater rafting river. The Corps is directed to work with local interests to establish a schedule of releases in order to maximize whitewater rafting benefits.

The Corps is required to schedule the releases as early as possible, then provide adequate advance notice of the whitewater releases. The Corps is also allowed to suspend or modify any releases of water made under this section for public health and safety or any other project purpose.

Section 320

This section authorizes a modification of the project purposes for Service portion of a joint Corps-SCS project in the Nonconnah

Creek Basin in the vicinity of Memphis, Tenn. The Corps portion of this project is authorized in title VII of this bill. The SCS measures will include erosion reduction work on 35,000 acres, plus construction of three dams on the Johns Creek tributary of the Nonconnah Creek. The SCS portion of the project has a benefit-cost ratio of 1.04-to-1, with the Federal cost set at $16,600,000 as of June 1981.

Section 321

The channel of the James River in northeastern South Dakota is obstructed by sand bars, debris, and silt. Because of these obstructions, the frequency and severity of flooding has increased significantly. The capacity of the channel needs to be restored through dredging, debris removal, and construction of a flood by-pass.

This provision authorizes the Corps of Engineers to participate with State and local authorities to accomplish necessary corrections at a Federal cost of $20,000,000. In addition the Corps shall consider the feasibility and desirability of other flood control and streamflow improvement features, including small impoundments and off-stream storage, then report to Congress on the need for additional authority to construct such features.

This project should be undertaken on an expedited basis in order to demonstrate the viability of the new non-Federal cost-sharing policies contained in the bill. No construction can be initiated by the Corps until a favorable report has been issued by the Chief of Engineers, but construction could be expedited by State and local authorities. Construction funds spent by State and local authorities would be credited against cost-sharing requirements applicable to subsequent construction activities by the Corps, provided such expenditures were made in accord with section 602(g) of this Act.

Section 322

This section authorizes additional work to control salt intrusion on the Red River in Oklahoma and Texas. Approximately $51,000,000 worth of work under this project in the Red River is under construction, building a brine lake where heavily saline waters are evaporated. This section authorizes the remaining Phase I work in the Red River, which is estimated to cost another $126,000,000.

An economic reanalysis of this work in 1980 reaffirmed that the project is economically feasible, with a benefit-to-cost ratio of 1.7-to-1, and recommended that the Secretary of the Army approve initiation of construction at the remaining areas. This has not occurred.

This section continues the agreement dividing the costs of chloride control on the Red River. The States pay the costs to clean up the man-made chloride contamination, while the Federal Government pays the costs to clean up the naturally occurring chloride. Because this portion of chloride control addresses naturally occurring chloride contamination, it is a Federal cost.

Section 323

Prior to the time when the Corps of Engineers completed a flood control project on the Milk River at Havre, Montana, in 1957, the city obtained its water from the river at a diversion weir. The flood control project diverted the river around the original weir. A new

weir was constructed, at Federal expense, on the relocated river channel.

This new weir has never operated properly. The City of Havre has been forced to repair it many times, most recently in the spring of 1982. A preliminary evaluation of water supply alternatives for the city completed by the Corps' Omaha District indicated construction of a new weir would be the best long-term solution for providing a water supply source for the city. This section authorizes the construction of a new weir at a cost of $1,400,000.

Section 324

The fish and wildlife resources of the Everglades National Park have been adversely affected by severe droughts alternating with unseasonable wet periods. Water deliveries in the Everglades National Park are regulated by the Central and Southern Florida project. This section authorizes changes in project operations to improve the delivery of water to the Park.

The section directs the Corps to work with the South Florida Water Management District to improve those water deliveries, and authorizes the Corps to construct any necessary flood protection measures needed to protect homes near the park, while this program is implemented. While no specific measures are known to exist, it is estimated that $10,000,000 may be required.

This is an experimental program, involving measures that may be reversed in the future. The Corps is studying the issue of water deliveries to the Everglades Park from the Central and Southern Florida project, and should complete that report, with specific long-term solutions, as soon as possible.

Section 325

This section authorizes $1,800,000 for the construction of a paved road to the Pearson-Skubitz Big Hill Reservoir in the State of Kansas.

Since water was impounded at the reservoir in March 1981, it has become a popular recreation site. The roads leading to the reservoir, however, are unpaved, and fail to accommodate the traffic demands. This section authorizes the construction of a safe and paved access road to the reservoir to facilitate the heavy recreational use of this reservoir.

Section 326

This provision would declare non-navigable 126 acres of filled land in the Hudson River in Jersey City, N.J. This action removes the Federal navigational servitude over this land.

Jersey City wishes to use this land, with surrounding lands, as part of an urban redevelopment plan. A declaration of non-navigability allows title insurance to be made available for the land, currently owned by the City of Jersey City. It is understood that these lands are expected to remain in public ownership, thus any benefits in the increase in land values as a result of this declaration will accure to a public agency.

For the purpose of this declaration, the lands in the Hudson River in New York Bay are those lands lying within the following described areas:

All that piece or parcel of land, situated, lying, and being in the City of Jersey City, Hudson County, State of New Jersey, upon or around that certain lot or piece of land known as the Caven Point Area, being more particularly described as follows:

Beginning at a point in the southeasterly end of Caven Point Road, said point being located the following two courses from the intersection of the southeasterly right-of-way line of Caven Point Road with the northeasterly boundary line of the whole tract of land (course number 9 in deed book 3145, page 439): (a) Along said line of Caven Point Road south 31 degrees 21 minutes 52 seconds west 359.61 feet to an angle point in the northeasterly right-of-way of Caven Point Road; (b) thence along same line south 52 degrees 42 minutes 47 seconds east 47.22 feet to the proper point of beginning;

Thence south 58 degrees 29 minutes 22 seconds east along a line 287.5 feet to a point;

Thence south 50 degrees 13 minutes 51 seconds east along a line 460.77 feet to a point;

Thence south 13 degrees 06 minutes 47 seconds east along a line 312.39 feet to a point;

Thence south 11 degrees 10 minutes 08 seconds east along a line 368.44 feet to a point;

Thence north 69 degrees 48 minutes 51 seconds east along a line 328.80 feet to a point;

Thence south 04 degrees 53 minutes 00 seconds west along a line 516.88 feet to a point;

Thence south 02 degrees 42 minutes 32 seconds east along a line 931.04 feet to a point;

Thence south 04 degrees 42 minutes 41 seconds west along a line 644.45 feet to a point;

Thence south 24 degrees 29 minutes 01 seconds west along a line 213.78 feet to a point in the southerly edge of an existing concrete pier (41.30 feet wide);

Thence south 44 degrees 26 minutes 38 seconds west along a line (being course number 28 in the above mentioned deed) 6.87 feet to a point;

Thence north 47 degrees 47 minutes 04 seconds west along a line (being course number 29 in the above mentioned deed) 231.00 feet to a point;

Thence south 44 degrees 16 minutes 49 seconds west along a line (being course number 30 in the above mentioned deed) 26.34 feet to a point;

Thence north 45 degrees 30 minutes 22 seconds west along the northeasterly line of lands now or formerly of the United States Government (Caven Point Marine Base) and the projection of same 1,905.57 feet to a point;

Thence north 88 degrees 14 minutes 02 seconds west along a line 1,184.70 feet to a point in the southwesterly boundary line of the whole tract (course number 33 of the above mentioned deed);

Thence north 49 degrees 07 minutes 25 seconds west along said boundary line 340.61 feet to a point in the southeasterly right-of-way line of New Jersey State Highway Route 185;

Thence along the same several courses and distances as recorded on the right-of-way plans for said Route 185 to the point or place of beginning, containing 108 acres, more or less;

Also that piece or parcel of land situate on the northwesterly side of New Jersey State Highway Route 185, more particularly described as follows:

Beginning at a point in the southeasterly right-of-way line of lands now or formerly of Lehigh Valley Railroad Company (National Docks Branch), said point being the intersection of said line with the southwesterly lines (if projected) of lands now or formerly of the United States Government (Caven Point Army Terminal);

Thence south 45 degrees 37 minutes 46 seconds east along said southwesterly line of United States Government property 774.30 feet to a point in the northwesterly right-of-way line of New Jersey State Highway Route 185;

Thence in a southwesterly direction along the several courses and distances along the right-of-wasy line of said Route 185 to the intersection with the northeasterly line of lands now or formerly of the Trustee of the Lehigh Valley Railroad;

Thence north 49 degrees 07 minutes 25 seconds west along said line and also along lands now or formerly of the Linden Urban Renewal Association 724.27 feet to a point in the aforesaid southeasterly right-of-way of the Lehigh Valley Railroad Company;

Thence north 37 degrees 13 minutes. 52 seconds east along the same line 953.84 feet to the point or place of beginning, containing 18 acres, more or less;

Subject, however, to a right-of-way and access easement for ingress and egress granted to the United States Government, and slope and drainage easements granted to the New Jersey Department of Transportation.

Section 327

This section deauthorizes the William L. Springer Lake Project, located near Decatur, Ill. This project was authorized in 1962, and has a present cost estimated at $245,000,000.

Subsection (b) of the section provides the City of Decatur with the first right to buy back the lands that were acquired for the project. Those lands shall be offered to the City at the price at which they were sold to the federal government, provided that the lands remain in public ownership to be used for public purposes. The City of Decatur is expected to construct a sewage treatment facility at the site.

Section 328

The Big South Fork National Recreation Area in Kentucky and Tennessee was authorized in legislation developed in the Committee on Environment and Public Works. For many years, the Honorable John Sherman Cooper, a Senator from Kentucky, served as a member of what was then the Senate Committee on Public Works. Senator Cooper was an early advocate of the creation of this Recreation Area.

Senator Cooper has had a distinguished career in public service, most recently as our nation's first ambassador to the German Democratic Republic.

This section renames the Big South Fork National Recreation Area as the John Sherman Cooper National Recreation Area.

Section 329

This section declares the Greens Bayou Bridge in Texas to be a lawful bridge for all purposes of the Truman-Hobbs Act. Such bridges are provided federal funds to be moved or raised if they are hazards to navigation. The Greens Bayou Bridge was determined to be a hazard to navigation, and subsequently the Port of Houston raised the bridge at a cost of $948,087. This section would reimburse the Port of Houston for a portion of that cost. The reimbursement is limited to no more than $450,000.

Section 330

Many public facilities and residents of the State of Utah were threatened by severe flooding this past spring. Given the uncertain nature of many flood control improvements in the area, this section authorizes the Corps to conduct a number of flood control studies to determine specific ways and means that could be developed to lessen the danger of flooding. These studies will concentrate on canyon debris basins, rivers, lake tributaries, and outlets in Utah. The Corps should accomplish this work as rapidly as possible, then transmit its recommendations to the Congress. Any work that is to be proposed must be economically and environmentally justified. A total of $1,600,000 is authorized for these studies.

This section covers studies in the following areas of Utah: The Provo River, from the mouth of Provo Canyon to Utah Lake; Utah Lake levees, from Provo River south along Interstate Highway 15; Interstate Highway 15 adjacent to Utah Lake; the Rock, Little Rock, and Slate Canyons in the City of Provo; the Bear River and its tributaries; the Weber River and its tributaries; and the Sevier River and its tributaries.

Section 331

The dam at Rend Lake was jointly constructed by the Corps and the State of Illinois. The contract, which was executed in 1965, incorporated provisions for payments for water supply, including future water supply. Water withdrawals began in 1972, and the State has used about 25 percent of the reservoir storage. At this rate of withdrawal, the full capacity would be reached by the year 2005.

The State has paid its share of the contruction debt to the Corps and has a continuing requirement to pay a share of the annual operations and maintenance. The terms of the contract, however, require that the State pay 100 percent of costs of operating and maintaining the storage (approximately $400,000 annually), even though it is using only 35 percent. Under the terms of the Water Supply Act, the State should not have to pay for future water supply prior to its use.

This section authorizes the Corps to amend its 1965 contract with the State. The amended contract would relieve the State of Illinois of the requirement to make annual payments for that portion of the maintenance and operation costs applicable to future water supply, until such time and in such proportion as the storage is ac-

tually used for water supply purposes. This would render the contract consistent with the provisions of the Water Supply Act of 1958, which permits the maintenance and operation costs for water supply to be based on the actual volume of water used from reservoir storage.

Section 332

The Illinois and Mississippi Canal, also known as the Hennepin Canal, was built by the Corps of Engineers early in this century. The canal runs from the Mississippi River near the mouth of the Rock River to the Illinois River, a distance of about 50 miles. It also includes a side Canal.

The canal was closed to commercial navigation in 1951, then turned over to the State of Illinois for recreational use in 1970. Under the terms of the transfer, the Corps was required to redevelop the Canal; Congress provided an authorization of $8,500,000 for this purpose. Much of that money was used in the initial rehabilitation work of the Corps.

But due to the need to satisfy a judgment resulting from a litigation involving highway bridges over the Canal, the rehabilitation work was never completed. It is estimated that the completion of rehabilitation of the Canal will cost $15,000,000. This section authorizes repairs to a dam and embankment.

Section 333

This section designates the Lowndesville Recreation Area, located within the Richard B. Russell Dam and Lake Project, S.C. and Ga., as the Jim Rampey Recreation Area. The late Mr. Rampey was the owner of most of the land which is now part of the recreation area.

TITLE IV—DAM SAFETY

Title IV contains provisions which are designed to assist and encourage programs to increase the safety of non-Federal dams. This title amends the National Dam Inspection Act (Public Law 92-367) to encourage and assist state dam safety programs, establish a Federal Dam Safety Review Board, and authorizes a program of research into innovative dam safety inspection techniques.

Section 401(a)

This section requires that dams having certain safety-related characteristics, and those exceeding the minimum size requirements set forth in Public Law 92-367, be included in the National Inventory of Dams and come under the effect of the amendments in this Title.

One of the most signficant Federal actions with regard to non-Federal dam safety problems has been the establishment of the National Inventory of Dams. The inventory has proven valuable for both Federal and State Dam safety efforts.

Section 401(b)

This section amends Public Law 92-367 by adding eight new sections to that law as follows:

Section 7.—Authorizes the Corps of Engineers to administer a $15,000,000 a year grant program for five years, beginning in fiscal year 1985, with the money to be allocated on a matching basis to States that have or develop dam safety programs meeting the requirements of the new Section 8, created in this title. One-third of this money be equally divided among those States and two-thirds is to be distributed according to the number of dams on the National Inventory in those States.

Section 8.—Establishes criteria that a State's dam safety program must meet to be eligible for funding under the preceding section.

To determine if a State is eligible for section 7 funds, the Corps of Engineers must establish that a State has adequate procedures to review dam construction plans, to assure the safe construction and operation of dams, and to perform dam inspections. The State must also have authority to require modifications necessary to assure the safety of any non-Federal dam, emergency plans and procedures with respect to dams, assure that necessary safety repairs will be undertaken by the party responsible for a dam, and also must have emergency funds available to take immediate measures to protect human life and property in dam related emergency situations.

These criteria are modeled after provisions of the "Model State Dam Safety Law" developed by the United States Committee on Large Dams.

Any State program submitted for section 7 funds is automatically approved within 120 days unless the Chief of Engineers determines that it does not meet the criteria of section 8. In such cases, the Corps shall immediately notify the State of the decision, in writing.

The Chief is also required to review, with the assistance of the Federal Safety Review Board created in section 10, the implementation and effectiveness of approved State dam safety programs. The Corps shall revoke a State's funding under section 7 if that State's program is shown to be inadequate. Funds may only be renewed when the State's program has been reapproved.

Section 9.—Requires the Federal Emergency Management Agency to perform a study of the cost, the need for, and the effects of a federally sponsored reinsurance program for dam owners. The results of this study are to be transmitted to Congress within 18 months after the enactment of this section.

Dam failures have resulted in billions of dollars of property damage since 1972, and the dam owners find it difficult to purchase liability insurance. Thus, the Federal Government, in the event of a non-Federal dam failure, faces high costs for disaster relief, costs well beyond what the dam owner may be able to pay.

A Federal program of reinsurance might make liability insurance more available to dam owners, and result in eventual savings to the Federal Government. Study of this question is needed to identify the shape and scope of such a program, if justified.

Section 10.—Because of the importance of dam safety, a need exists for a central authority to provide oversight, coordination, and information exchange on dam safety.

This section establishes a nine-Member Federal Dam Safety Review Board consisting of one representative each from the Corps of Engineers, the Bureau of Reclamation, the Tennessee Valley Authority, the Soil Conservation Service, and the Federal Emergency Management Agency. In addition, four Presidentially appointed members who are not employees of the Federal Government are to be members, with two of these to represent States having dam safety programs approved under section 8.

The Board is required to perform three major functions: to review the procedures and standards utilized in the design and safety analysis of Federally constructed and operated dams, to review State implementation of dam safety programs approved pursuant to this Act, and to study the need for a Federal loan-program to assist in the repair of non-Federal dams.

Section 11.—Requires that any Federal Agency that owns, operates, or plans to construct a dam consult with the appropriate State or States on the design and safety of the dam and allow State officials to participate in any safety inspections of that dam.

While this section confers no actual decision-making role on the States regarding Federal dam construction or design, the Federal agencies should give full consideration to the views of the State on the safety related features of a Federal dam.

Section 12.—A serious problem for many States in establishing and maintaining effective dam safety programs is a lack of adequately trained personnel. The Corps of Engineers possesses a great deal of expertise in all aspects of dam safety. It conducted training sessions for state personnel pursuant to expired authority in Public Law 92-367.

Therefore, this section authorizes the Chief of Engineers to provide training for dam safety inspectors of States either having or developing a dam safety program approved under section 8. One million dollars is authorized for this purpose in fiscal year 1985, and $500,000 is authorized for each of the next four fiscal years.

Section 13.—The present methods for dam inspection have, for the most part, remained unchanged for many years. Thorough inspections of most dams and evaluations of their structural integrity involve many man-hours and can be quite expensive. There is a need to develop new instruments and methods to evaluate dams. Because even the most thorough inspections by present day techniques cannot fully evaluate a dam's condition, there is a need to develop tools and techniques to reveal more about the structural integrity of dams.

To date, much work applicable to dam safety evaluation has been done in other fields, such as mineral exploration and construction technology. These evaluation involve the use of acoustic, thermal, microwave, or mechanical techniques to examine subsurface phenomena. The National Bureau of standards has expertise in the development and evaluation of this type of instrumentation.

This section authorizes $1,000,000 annually for five years for the Corps of Engineers, in cooperation with the National Bureau of Standards, to undertake research and development on improved techniques and equipment for dam safety inspections and monitoring.

The Corps is also instructed to provide for State participation in this research, and is required to report periodically to the States and Congress on its progress.

Section 14.—Authorizes, for each of fiscal years 1985–1989, $500,000 to the Corps of Engineers for the purpose of maintaining the National Inventory of Dams.

The Inventory of Dams catalogs the location, size, owner, condition, and other information on over 67,000 dams that could present a hazard in the event of their failure. Authorization to keep this important information tool current has expired and should be renewed.

Section 402

This section requires that any water resources study report submitted to the Senate Committee on Environment and Public Works and House Committee on Public Works and Transportation by the Corps of Engineers and the Soil Conservation Service that proposes the construction of a dam must include information on the consequences of its failure and factors which might contribute to that failure.

The risk associated with properly designed, constructed, and maintained dams is minimal, but the science of predicting the probability of any particular dam's failure is undeveloped. However, since the consequences of a dam's failure, however unlikely or unpredictable, could be catastrophic, it is reasonable to expect that such information be included in project reports.

Section 403

This section designates this title as the Dam Safety Act of 1983.

TITLE V

Section 501 sets a limitation on obligations for the construction, rehabilitation, operation, and maintenance of the commercial inland navigation system. The limitation is set at $646,000,000 in each of 14 fiscal years, beginning in fiscal year 1986 and ending fiscal year 1999.

The $646 million figures is based on actual expenditures for this function during fiscal year 1983. Thus, Title V freezes Federal obligations for commerical inland waterways activites—both from general revenues and from the Waterways Trust Fund—at current levels.

This limitation covers all expenditures by the Army Corps of Engineers on the commercial navigation components of the inland system.

Section 502 authorizes the Secretary of the Army to impose and collect use charges on commercial users of the inland system so that additional monies will be available, if needed, in excess of the obligation limits set in section 501. These additional funds would be raised and made available only if the Inland Waterway Users Board (established in the succeeding section) recommended them. Any such funds must be spent solely on commercial navigation components of the system.

Nothing in either this section or in section 501 limits the authority of the Secretary to obligate funds on those components and activities of the inland system that are not identified under this title as for the purposes of commercial navigation. This would include flood control spending, or a project operated strictly for recreation vessels. A lock or channel that is operated for both commercial and recreational vessels, assuming it carries more than very occasional commercial traffic, is considered a commercial component.

This section also provides a definition for the inland waterways and harbors, which are stated to include all waterways operated and maintained by the Corps of Engineers to a depth of 14 feet. There are approximately 25,000 miles of such waterways.

The term commercial navigation features is also defined to mean those activities designed primarily for commercial navigation purposes, together with 20 per cent of the expenditures for the Mississippi River and Tributaries Project.

Section 503 establishes an Inland Waterways Users Board of 21 members. The members are to be selected by the Secretary of the Army. It is expected that the Secretary will select members from persons recommended by organizations representing shippers and companies operating on the inland system. While there is no specified term of membership, the Secretary should seek to name members for staggered periods of five years in order to provide continuity to the Board. Further, the Secretary is expected to make every effort to provide regional, as well as commodity, balance among the members of the Users Board. For example, agricultural products represent a major commodity shipped on the inland system. Agricultural interests should have a strong voice on the Board, with representation reflecting the revenues those commodities generate.

The Secretary is expected to pay any administrative costs of the Users Board, as well as the cost of collecting use fees.

The Users Board shall meet no later than December 1, 1984, and at least annually thereafter, to develop and make recommendations to the Secretary for obligation levels on the inland system for the succeeding fiscal year.

These recommendations are to be submitted to the Secretary and to Congress, printed in the Federal Register, and transmitted to the President for inclusion in the Budget to be submitted to Congress early in the next calendar year. While project authorization remains a function of Congress, the Board's recommendations would, of course, assist the Secretary in determining which projects go forward, and at what level of spending.

The section declares that it is the sense of Congress that the Secretary shall neither obligate funds in excess of the level recommended by the User Board, nor impose use charges beyond that level needed to meet those recommended obligations.

This is an important point. While neither the Executive Branch nor Congress can be bound legally by such a recommendation, it is anticipated that both will adhere to those recommendations.

To provide the Secretary and the Users Board with further flexibility, a carry-over provision is included. This eliminates any "use-it-or-lose-it" danger. If the Users Board recommends an obligation level of $626,000,000 in one year, the differential between that figure and the cap ($20,000,000 in this example) would be available

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in any succeeding fiscal year, notwithstanding the section 501 limitation.

The Secretary, in cooperation with the Users Board, is directed in this section to report annually on the operations of this title to Congress and to the President.

Section 504 provides the Secretary of the Army with authority to rehabilitate inland navigation projects, if the new work has a cost up to $25 million.

This section amends language written in the 19th century, legislation that provided the Corps of Engineers with ongoing authority to reconstruct inland waterway projects without specific Congressional authorization. In the 1970's, the courts ruled that the Corps had exceeded this narrow authority. Since then, the Corps has not utilized this authority.

In an effort to provide the Corps with reasonable flexibility, section 504 restates this on-going authority, but limits it to work that costs no more than $25,000,000 per project, and requires that the new work will not expand the capacity of the project.

Any work under this section would, of course, fall under the section 501 cap, and such activity would, of course, be subject to the recommendations of the Users Board under the terms of section 503.

The section also states that this language does not apply to the Panama Canal, nor does any other language in the bill.

Section 505 authorizes for construction 12 inland navigation projects, as follows:

(1) HELENA HARBOR, ARKANSAS

Location.—Phillips County in east central Arkansas, south of Helena, Arkansas along the West Bank of the Mississippi River.

Purpose.—Shallow draft navigation improvement.

Problem.—Lack of a suitable flood-free area for harbor development.

Recommended plan.—Construction of a slackwater harbor consisting of a 9 feet by 300 feet channel 5.5 miles long. Dredged material would be used to create 685 acres of flood-free land suitable for harbor development. 825 acres of bottomland hardwood would be purchased for mitigation purposes.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1979.

Total project cost.—$61,900,000.

Federal first cost.—$42,000,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(2) WHITE RIVER NAVIGATION TO BATESVILLE, ARKANSAS

Location.—On the lower 300 miles of the White River in east central Arkansas.

Purpose.—Shallow draft navigation improvement.

Problem.—River conditions, including shallow depths, narrow channel, and tight bendways result in inefficient and unsafe commercial navigation.

Recommended plan.—Improvement of channel to provide for a 200 feet wide by 9 feet deep channel to Newport, Arkansas. Im-

provement would be achieved by dredging, dikes, and bank paving. About 1,865 acres of bottomland hardwoods will be purchased for mitigation, along with possible aquatic management measures.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in January, 1981.

Total project cost.—$26,500,000.

Federal first cost.—$20,500,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(3) LAKE PONTCHARTRAIN, NORTH SHORE, LOUISIANA

Location.—Southeastern Louisiana on the north shore of Lake Pontchartrain in the vicinity of New Orleans.

Purpose.—Shallow draft navigation, beach erosion control, and recreation.

Problem.—The north shore of Lake Pontchartrain and nearby lowland areas are subject to severe damage by wind driven waves, especially during major hurricanes. The area is also subject to tidal flooding and shoreline erosion. There is need for a safe harbor for recreational craft.

Recommended plan.—The entrance channel, a mooring area and jetties at the mouth of Bayou Castine would be maintained by the Federal Government and a 25-acre beach would be created and periodically nourished.

Environmental impact statement.—Final statement filed with the Enivronmental Protection Agency in March, 1981.

Total project cost.—$1,210,000.

Federal first cost.—$850,000.

Benefit/cost ratio.—3.9 to 1 at a discount rate of 7⅞ percent.

(4) GREENVILLE HARBOR, MISSISSIPPI

Location.—On the Mississippi River about 2.5 miles downstream from Greenville, Mississippi.

Purpose.—Shallow draft navigation improvement.

Problem.—Serious need for additional general navigation facilities at Greenville to serve existing and projected growth in river traffic and associated industrial expansion.

Recommended plan.—Widening the existing channel into Greenville Harbor and dredging an off-river inner harbor channel. Material from channel dredging would be used to raise the adjacent lands to provide a 25-year flood frequency elevation.

Environmental impact statement.—Final statement filed with the Council on Environmental Quality in August, 1973.

Total project cost.—$39,400,000.

Federal first cost.—$27,700,000.

Benefit/cost ratio.—7.3 to 1 at a discount rate of 7⅞ percent.

(5) VICKSBURG HARBOR, MISSISSIPPI

Location.—Along the Yazoo and Mississippi Rivers in the vicinity of Vicksburg, Mississippi.

Purpose.—Shallow draft navigation improvement.

Problem.—Lack of adequate sites for waterfront development in the vicinity of Vicksburg, and unsafe channel widths in the Yazoo River Diversion Canal and its approach channel.

Recommended plan.—Construction of a new off-river navigation channel, with dredged material being used to provide 500 acres of landfill for development sites. The existing Yazoo River Diversion Canal and its approach channel will also be widened. The purchase of 1,000 wooded acres will serve as mitigation for the lands required for project construction and maintenance.

Environmental impact statement.—Final statement submitted to the Environmental Protection Agency in December, 1982.

Total project cost.—$69,100,000.

Federal first cost.—$54,700,000.

Benefit/cost ratio.—2.4 to 1 at a discount rate of 7⅞ percent.

(6) ATLANTIC INTERCOASTAL WATER WAY—REPLACEMENT OF FEDERAL HIGHWAY BRIDGES IN NORTH CAROLINA

Location.—Three bridges located in eastern North Carolina: Core Creek Bridge, about 8 miles north of Morehead City, N.C.; Fairfield Bridge, approximately 75 miles east of Washington, N.C.; and Hobucken Bridge, approximately 30 miles east of New Bern, N.C.

Purpose.—Assumption of State cost-sharing requirement under 1970 Rivers and Harbors Act.

Problem.—The 1970 Rivers and Harbors Act authorized the replacement of five substandard highway bridges at 75 percent Federal funding. After the State of North Carolina withdrew its cost sharing offer in 1974, the Water Resources Development Act of 1976 deleted non-Federal cost sharing requirements for two of these bridges. The three remaining bridges listed here were not included in this modification. All three were constructed in the early 1930s and are grossly inadequate to handle existing traffic and constitute a hazard.

Recommended plan.—Modify section 101 of the 1970 Rivers and Harbors Act to relieve the State of North Carolina of any cost sharing responsibility with respect of the three bridges.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in November, 1970.

Total project cost.—$8,000,000.

Federal first cost.—$8,000,000.

Benefit/cost ratio.—Not applicable.

(7) OLCOTT HARBOR, NEW YORK

Location.—South shore of Lake Ontario at the mouth of Eighteen Mile Creek.

Purpose.—Recreation and shallow draft navigation.

Problem.—A growing shortage of berthing space along Lake Ontario's perimeter and the existance of heavy wave action during northernly storms in Olcott Harbor. In addition, there is the need for increased access to the lakeshore for the purpose of recreational fishing.

Recommended plan.—Construction of breakwaters, a stone jetty, and recreation fishing facilities, and additional channel dredging.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1979.
Total project cost.—$11,676,000.
Federal first cost.—$5,320,000.
Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(8) BONNEVILLE NAVIGATION LOCK, WASHINGTON AND OREGON

Location.—Located at existing Bonneville Lock and Dam Project on the Columbia River.
Purpose.—Shallow draft navigation.
Problem.—Existing 76 feet by 500 feet lock is the smallest in the Columbia-Snake River Waterway system and is insufficient to efficiently handle existing river tows. In addition, this lock, if not replaced, is expected to become a traffic bottleneck by 1988 to 1990. The entrance approaches to the existing lock are also hazardous.
Recommended plan.—Construction of a new 86 feet by 675 feet lock and entrance channels.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.
Total project cost.—$177,018,000.
Federal first cost.—$177,000,000.
Benefit/cost ratio.—1.35 to 1 at a discount rate of 7⅞ percent.

(9) MEMPHIS HARBOR, TENNESSEE

Location.—President's Island in the Mississippi River, south of Memphis, Tennessee.
Purpose.—Shallow draft navigation.
Problem.—Lack of adequate harbor development sites to meet projected demands.
Recommended plan.—Dredging of a new navigation channel into President's Island for a slackwater harbor with the dredge fill being used to create a 1,000 acre flood free area for industrial development.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1980.
Total project cost.—$105,000,000.
Federal first cost.—$43,000,000.
Benefit/cost ratio.—4.2 to 1 at a discount rate of 7⅞ percent.

(10) GALLIPOLIS LOCKS AND DAM REPLACEMENT, OHIO AND WEST VIRGINIA

Location.—In the Middle Ohio Valley about 14 miles downstream on the Ohio River from the mouth of the Kanawha River in West Virginia.
Purpose.—Shallow draft navigation.
Problem.—The present locks at Gallipolis (one 110 feet by 600 feet lock and one 110 feet by 360 feet lock) are small by comparision to other locks on the Ohio River and are inadequate to handle existing river traffic. The location of the locks in a riverbend makes locking conditions difficult and dangerious during moderate to high river levels.

Recommended plan.—Construction of two new locks measuring 110 feet by 1,200 feet and 110 feet by 600 feet in a canal which will bypass the existing locks and dam and a major rehabilitation of the existing dam. 840 acres of mitigation lands will be purchased.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in January, 1982.

Total project cost.—$333,000,000.

Federal first cost.—$313,000,000.

Benefit/cost ratio.—12.2 to 1 at a discount rate of 7⅞ percent.

(11) LOCK AND DAM 7 REPLACEMENT, PENNSYLVANIA

Location.—Monongahela River near Greensboro, Pennsylvania.

Purpose.—Shallow draft navigation.

Problem.—Antiquated and deteriorated facility no longer serves the commercial needs of the river.

Recommended plan.—Replacement of existing lock.

Environmental impact statement.—Under preparation.

Total project cost.—$95,000,000.

Federal first cost.—$95,000,000.

Benefit/cost ratio.—1.9 to 1 at a discount rate of 7⅞ percent.

Additional comments.—Project authorization is conditioned upon completion of a favorable report of the Chief of Engineers.

(12) LOCK AND DAM 8 REPLACEMENT, PENNSYLVANIA

Location.—Monongahela River near Point Marion, Pennsylvania.

Purpose.—Shallow draft navigation.

Problem.—Antiquated and deteriorated facility no longer serves the commercial needs of the river.

Recommended plan.—Replacement of existing lock.

Environmental impact statement.—Under preparation.

Total project cost.—$65,000,000.

Federal first cost.—$65,000,000.

Benefit/cost ratio.—1.9 to 1 at a discount rate of 7⅞ percent.

Additional comments.—Project authorization is conditioned upon completion of a favorable report of the Chief of Engineers.

Section 506 brings the New York State Barge Canal, owned and operated by the State of New York, under the program of Federal assistance. That system was constructed early in the 19th Century, then reconstructed to its present configuration in 1918. The total system consists of 56 locks on 512 miles of waterways. The Barge Canal consists of four connected subsystems: (1) the Champlain Canal, from Waterford to Whitehall at the head of Lake Champlain; (2) the Erie Canal, from Waterford to Tonawanda; (3) the Oswego Canal, Three Rivers Point to Oswego; and (4) the Cayouga-Seneca Canal, from the Erie Canal to Ithaca and Montour Falls.

In 1981, operating and maintenance for the Barge Canal cost $21,000,000. This section authorizes the Corps of Engineers to maintain and rehabilitate the Canal. The State of New York will control the canal and provide 50 percent of the operations, maintenance, and rehabilitation costs.

Section 507 authorizes provisions from the Upper Mississippi River Master Plan, which was developed by the Upper Mississippi

River Basin Commission as a result of a congressional directive in Public Law 95–502.

The Commission completed that plan and transmitted it to Congress on January 1, 1982. The Commission's three-year study sought to answer several questions posed in Public Law 95–502:

The impacts of the expansion of commercial navigation on fish and wildlife, water quality, recreation, potential wilderness areas, national transportation policy, and shippers dependent on rail service;

The carrying capacity of the Upper Mississippi River System;

The economic need for a second lock at Locks and Dam 26, as well as ways to mitigate any damage that might be caused by a second lock;

The costs and benefits of disposal of dredged material outside the floodplain; and

The possibility of a computer information system to analyze alternatives.

The report to Congress contained the results of these studies and a series of recommendations, which constitute the Master Plan. With few exceptions, this section authorizes those recomendations.

This section defines the Master Plan and the Upper Mississippi River System. It provides the consent of Congress to the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, or any combination of those States, to enter into agreements for cooperative planning efforts on the Upper Mississippi.

Subsection (e) authorizes construction of a second chamber at Locks and Dam 26 on the Mississippi at Alton, Ill., at a cost of $245,000,000. This lock chamber will be 600 feet long and 110 feet wide, and will be added to the 1,200-foot lock presently under construction.

The Corps is directed, in consultation with the Department of Transportation and the States, to monitor traffic on the Upper Mississippi to verify the need for future expansion, if any. Such sums as may be necessary are authorized for a period of 10 years.

IOn addition, this section authorizes a variety of programs by the Secretary of the Interior, working with the appropriate State agencies:

A wildlife habitat rehabilitation and enhancement program. This effort would plan and construct projects for aquatic and terrestrial habitat that has been lost or threatened as a result of human activities or natural factors. During the first fiscal year after enactment, $8,200,000 is authorized to Interior, $12,400,000 during the second fiscal year, then $13,000,000 for each of the next eight fiscal years;

The implementation of a long-term resource monitoring program, at a cost of $7,680,000 in the initial fiscal year, then $5,080,000 yearly for the next nine fiscal years; and

The development of a computerized inventory and analysis system, at a cost of $40,000 in the initial fiscal year, $280,000 in the second fiscal year, $1,200,000 in the third fiscal year, and $775,000 in each of the next seven fiscal years.

In consultation with the Corps, Interior shall also implement a program of recreational projects at a cost of $500,000 yearly. Begin-

ning after the computerized inventory is available (probably in fiscal year 1987), Interior is provided $300,000 in each of the next two fiscal years, then $150,000 in the following fiscal year for this purpose. This money shall be used to assess the benefits of recreational activities.

Consistent with the objectives of section 224 of this Act, the habitat rehabilitation and enhancement program for the Upper Mississippi River System must be implemented prior to, or concurrent with, the engineering, design, and construction of the second lock at Locks and Dam 26.

With the exception of the funds for construction of the second chamber, none of the funds authorized in this section are considered to be commercial components of the inland system for the purposes of title V.

This section is cited as the "Upper Mississippi River System Management Act of 1983."

TITLE VI

Title VI establishes cost-sharing policy for Federal water resource project development. This title increases the non-Federal share of project costs, and establishes a distinction between the percentage of project costs which non-Federal interests are to provide eventually (the cost-share) and how that share is to be financed. Provisions in this title do not apply to commercial navigation projects.

The following table summarizes provisions of this title and current policy.

COST SHARING COMPARISON, CORPS OF ENGINEERS PRESENT POLICY, AND PROPOSED POLICY IN S. 1739

Project purpose	Non-Federal-present	Non-Federal S. 1739 [1]
Hydroelectric power	100 percent (50-yr repayment).	Same as existing law.
Municipal and industrial water supply	100 percent (50-yr, 10-yr interest free development period).	100 percent.
Recreation	50 percent separable cost (50-yr repayment). 0 percent joint costs	50 percent minimum.
Beach erosion	50 percent public beaches	50 percent minimum public beaches.
	100 percent nonpublic use private beach.	100 percent private beaches.
Flood control	0 percent if dam or local levee.	35 percent minimum—including land, easements, and rights of way.
	Land, easements, and rights of way if a load levee-channel project.	If entire contribution made during construction share is reduced to 25 percent.
	20 percent if nonstructural (land, easements, and rights of way count toward this).	An ability to pay determination is made.
Irrigation	100 percent without interest—usually works out to 10 or 12 percent payback.	Same as existing law.

[1] In all cases except hydroelectric power and nonstructural flood control, 5 percent cash during construction is required; payment in kind accepted; 30–50 year repayment at Federal borrowing rate.

Section 601 requires that all projects authorized in this bill, or subsequent to its enactment, can be initiated only after non-Federal project sponsors agree to pay all of the project's operation and

maintenance costs, and to share construction costs as specified. Projects currently operated and maintanined by the Corps of Engineers at Federal expense continue to remain a Federal responsibility.

Cost-sharing agreements which involve more than one project purpose may allocate to each respective purpose more or less than the actual cost associated with the purpose, so long as the total non-Federal constribution equals the total percentage required under this title for all purposes of the project. As in the past, lands, easements, and rights-of-way are credited toward such cost-sharing percentages.

This section reaffirms long-established policies governing the marketing of hydroelectric power developed at Federal projects. Preference in the marketing of such power is given to public power systems and rural electric cooperatives. The power shall be marketed at uniform, area-wide rates with delivery to purchasers at load centers. Rates are established on a cost basis.

In addition to returning all of the operation, maintenance and replacement costs attributable to the production of power, all of the capital investment allocated to power is recovered, with interest, over a period of 50 years from the time each power feature (including allocated joint costs) becomes commercially operable, or within the useful life of such feature, whichever is the lesser. In addition, there will be amortized, over the repayment period established by or pursuant to law, other project costs assigned in accordance with law for the return from power revenues and reimbursable costs allocated to irrigation under the Federal reclamation laws that are beyond the repayment ability of the irrigators.

Preference to consumer-owned electric utilities in the use of the output of Federal projects is a concept which dates back three-quarters of a century, and has been reiterated in more than 30 statutes. Excess electric power generated by Federal projects is sold to State and local governmental entities and to private, non-profit organizations, when those groups are able and willing to purchase the electricity. To the extent that these preferred customers are not willing to purchase the power, it may be sold to investor-owned utilities.

By assuring the availability of power to municipally-owned utilities and non-profit cooperatives, the preference clause bolsters competition.

The proviso in Section 601(a)(1) assures the authority of a power marketing agency to accept advances of funds by purchasers of power. There has long been authority, such as in the Bonneville Power Administration, to accept advances of funds under constractual agreements with investors in order to apply such funds to construction of power features. The preference provisions previously cited apply to such arrangements, as they do in other types of power marketing.

Section 602 makes the following clarifications and specifications on the cost-sharing provisions of section 601:

> Payments in kind for non-Federal contributions may be accepted by the appropriate Federal agency, except that at least 5 percent of project costs are to be paid in cash during construction for all purposes except hydroelectric power and navi-

gation. Cost-sharing policy for inland and deep-draft navigation is addressed in titles V and X of this Act respectively.

Cost-sharing requirements for flood control projects, rural drainage projects, or agricultural water projects are reduced to 25 percent, including at least a 5 percent cash contribution, when the local contribution is made entirely during project construction.

No cash contribution is required for non-structural flood control measures.

Repayment of contributions required under this Act may be made in full during construction of the project, or over a period of 30 to 50 years, with interest.

The applicable rate of interest is that authorized by law for the project, or determined by the Secretary of the Treasury.

Initial payment towards the non-Federal cost-share may be delayed for one year at the request of the project sponsor and work undertaken by a non-Federal sponsor shall be considered to satisfy cost-sharing requirements if such work has been approved by the appropriate Division Engineer of the Corps of Engineers and credit is sought only for non-Federal funds spent on such work.

For example, a local sponsor with the ability to pay for a structural flood control project has two financing options. If the total cost of the project is $50,000,000, there would be a total cost-sharing requirement of $17,500,000, of which $2,500,000 (5 percent) must be contributed in cash during project construction. If the local land contribution had a value of $5,500,000 then the non-Federal sponsor has the option of either contributing $9,500,000 in cash, with interest, over a period from 30 to 50 years, or adding $4,500,000 in cash to be paid during construction.

Section 603 requires that any cost-sharing agreement for flood protection, rural drainage, or agricultural water supply under this Act be consistent with the ability of the non-Federal sponsor to pay. This determination is to be made by the Federal construction agency in accord with applicable law or under procedures determined by that agency.

To the extent that non-Federal sponsors have the financial ability to contribute to the costs of water resource project construction as outlined in sections 601 and 602, they should be required to do so. In this way the efficiency of the Federal development program will be strengthened and scarce Federal budget resources provided to assure maximum flexibility.

The Bureau of Reclamation has a long-established practice of determining the ability of project beneficiaries to pay. This practice is continued for projects constructed by the Bureau of Reclamation and is extended to flood control and agricultural drainage and agricultural water supply projects of the Corps of Engineers.

Beneficial projects should not be rejected simply because non-Federal interests lack the resources to finance a share of development costs. Ability-to-pay determinations are likely to be used infrequently by the Secretary as the cost-sharing provisions of this Act should not prove burdensome.

Section 604 provides that no additional cost-sharing is required for any water project authorized prior to the date of enactment of

this Act as long as construction on the project does not begin until fiscal year 1994. Construction can begin earlier if one of the following three conditions is met:

(1) non-Federal sponsors agree to meet-sharing requirements that existed prior to this Act, plus half of the additional requirements of this Act; or

(2) such project is an uncompleted unit of a comprehensive river basin program of development to be located in a State where large acreages of land or volume of water have been dedicated to such program for the benefit of other States; or

(3) such project has received appropriated construction funds prior to January 1, 1983.

Thus, most non-Federal sponsors of projects authorized for construction prior to this Act, but which have not been initiated, would have the option of waiting 10 years or more for development under the cost-sharing policies now in existence, or they could agree to contribute half of the difference in cash and seek earlier construction.

There are 790 projects, with a total cost of $29.4 billion, which fall into this category. This means that the sponsor of a project authorized prior to this Act with a total cost of $50,000,000, including $5,500,000, in local land contributions, has two options:

The first is to wait 10 years for development, then contribute nothing more toward construction than the $5,500,000 in lands.

The second option would be to agree to contribute those lands, plus half of the required additional contribution in cash to seek earlier construction.

To meet this second option, local sponsors would have to contribute, in cash, $1,250,00 (2½ per cent of project costs) during construction, with an additional $4,750,000 due, with interest, over a period from 30 to 50 years. Or local sponsors could contribute another $2,250,000 in cash during construction (the 25 per cent alternative).

Projects or separable elements that are "under construction" would not be subjected to a revision in non-Federal requirements. A project shall be considered "under construction" if it has received appropriations under the "construction, general" account. This includes projects such as Lake Darling, N.D., which has received construction appropriations, even though construction has not yet begun.

TITLE VII

This title authorizes for construction by the Corps of Engineers 63 flood control projects, 10 hydroelectric projects, 11 shoreline projects, 8 fish and wildlife mitigation projects, 1 bank stabilization project and 2 demonstration projects.

All of the projects authorized in this title are subject to the provisions of title I, title VI, and sections 212, 213, and 218 of this Act. The total estimated Federal cost of these projects is approximately $6 billion. The Federal cost of any specific project is likely to be less than indicated in this report with the application of the cost-sharing provisions of title VI of this Act.

The construction of each shore protection project authorized in section 701(c)(1) of this title is subject to a determination by the Corps of Engineers, in consultation with the Department of Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

The following flood control projects are authorized by section 701(a):

(1) VILLAGE CREEK, JEFFERSON COUNTY, ALABAMA

Location.—Village Creek flows from eastern Jefferson County through the city of Birmingham to the Black Warrior River.

Purpose.—Flood control.

Problem.—There is serious flooding in the older residential sections of Birmingham.

Recommended plan.—Combination of structural and nonstructural measures including evacuation of 574 structures from the flood plan and excavation of a 2.2-mile channel with attendent modifications to four bridges.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June 1982.

Total project cost.—$26,100,000.

Federal first cost.—$20,700,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(2) EIGHT MILE CREEK, PARAGOULD, ARKANSAS

Location.—Green and Craighead Counties in northeast Arkansas near the city of Paragould.

Purpose.—Flood control; recreation.

Problem.—Major floods have occurred in the basin every 4 to 12 years, most recently, in 1973, damages totalled $12.3 million in 1982 dollars.

Recommended plan.—Channel enlargement on 11.4 miles of Eight Mile Creek and establishment of a green way along one side of the channel.

Environmental impact statement.—Final statement filed with the Environmental protection Agency in February 1981.

Total project cost.—$14,500,000.

Federal first cost.—$14,500,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(3) FOURCHE BAYOU BASIN, ARKANSAS

Location.—Saline and Pulaski Counties in central Arkansas, predominantly in the city of Little Rock, Arkansas.

Purpose.—Flood control; recreation.

Problem.—Inadequate channel capacity of Fourche Creek results in major flood damage to urbanized area of the city of Little Rock. The last major flood in 1978 caused $17 million in damages.

Recommended plan.—Channel improvement, restriction of future development in the flood plain, and acquisition of 1,750 acres of bottom land for environmental preservation.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March 1981.

Total project cost.—$29,000,000.
Federal first cost.—$19,700,000.
Benefit/cost ratio.—2.1 to 1 at a discount rate of 7⅞ percent.

(4) HELENA, ARKANSAS

Location.—Phillips County in east-central Arkansas along the Mississippi River.
Purpose.—Flood control.
Problem.—Commercial and residential area of the city of Helena has experienced three major floods in the last 10 years, two of which exceeded the 100 year frequency flood.
Recommended plan.—Three miles of channel enlargement and a pumping station.
Environmental impact statement.—Environmental assessment finding of no significant impact signed by District Engineer on September 24, 1982.
Total project cost.—$13,300,000.
Federal first cost.—$11,600,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(5) LITTLE COLORADO RIVER AT HOLBROOK, ARIZONA

Location.—The city of Holbrook, 150 miles north of Phoenix, Arizona.
Purpose.—Flood control; recreation.
Problem.—There is recurrent flooding in the urban area of the city of Holbrook. The last major flood occurred in 1972.
Recommended plan.—Raising of the north bank levee along 18,000 feet of the river and adding a south bank levee along 5,000 feet of the south bank of the river. Recreation development includes 3.7 miles of bike trails and 5 picnic areas.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1981.
Total project cost.—$10,300,000.
Federal first cost.—$1,730,000.
Benefit/cost ratio.—2.1 to 1 at a discount rate of 7⅞ percent.

(6) CACHE CREEK BASIN, CALIFORNIA

Location.—Approximately 90 miles north of the city of San Francisco.
Purpose.—Flood control; fish and wildlife enhancement.
Problem.—Flooding has repeatedly occurred along the rim of Clear Lake in the Upper Cache Creek Basin, most recently in 1970. Sediment control problems in the Lower Cache Creek Basin result in excess deposits in down stream flood control channels impairing their efficiency.
Recommended plan.—Enlargement of Clear Lake outlet channel and addition of a bypass channel for enhanced flood protection and raising levees of the existing settling basin to provide additional sediment storage capacity. A National Wildlife Refuge would be established in the settling basin and future development on Clear Lake would require flood proofing.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1980.

Total project cost.—$28,400,000.

Federal first cost.—$21,100,000.

Benefit/cost ratio.—2 to 1 at a discount rate of 7⅞ percent.

Comments.—The Committee is concerned by reports that elements of this project would adversely impact a State park in the project area. Therefore, construction is authorized contingent upon the Secretary coordinating with the State of California to assure that project development does not pose a danger to any component of the State park system.

(7) REDBANK AND FANCHER CREEKS, CALIFORNIA.

Location.—The Fresno-Clovis metropolitan area of Fresno County.

Purpose.—Flood control; recreation.

Problem.—Because of the inadequacy of the existing flood control reservoir and lack of detention basins, urban flooding in the Fresno area has caused continued problems.

Recommended plan.—The existing Big Dry Creek Reservoir dam would be raised from 40 to 55 feet; a 49 foot dam on Francher Creek would be constructed; and 3 detention basins 6, 15, and 17 feet high would be built.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1980.

Total project cost.—$75,200,000.

Federal first cost.—$57,200,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(8) SANTA ANA RIVER MAINSTREAM, INCLUDING SANTIAGO CREEK, CALIFORNIA

Location.—Southeast of Los Angeles in Orange County and Western San Bernardino and Riverside Counties.

Purpose.—Flood Control.

Problem.—Highly developed and urbanized areas of Southern California though which the Santa Ana River passes are faced with the potential for unprecedented flood damages should, what is called the Standard Project Flood or maximum probable flood, materialize. Such a flow of water could not be handled by existing flood protection structures on the river and damages from such an event have been estimated at $14 Billion.

Recommended plan.—Raise existing Prado Dam 30 feet; construct 23 miles of channels and levees on the Santa Ana River; construct 2 miles of channel on the Oak Crest Drain; and construct a flood retardation basin and 1.7 miles of channel improvement on San Diago Creek.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$1,260,000,000.

Federal first cost.—$1,180,000,000.

Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

Comments.—There is strong opposition to the construction of the Mentone Dam feature of the proposed project of the Chief of Engi-

neers among local officials in the project area. This feature of the proposed project is not authorized for construction. Up stream interests are now awaiting resolution of Corps studies on alternatives to the Mentone Dam and the Corps is urged to complete these studies as quickly as possible in order that authorization of an alternative up stream proposal can be considered by the Congress.

There are also benefits that may accrue to the affected communities through a policy of attempting to maximize water conservation in the operation of the Prado Dam. The Secretary of the Army is encouraged to assure, whenever possible, that at the end of the winter storm and flood season the Corps of Engineers will seek to collect up to 50,000 acre feet of water behind Prado Dam, and release such water thereafter at a rate that insures maximum use by municipal or regional water districts (approximately 300–400 cubic feet per second), while preserving at all times the riparian rights of landowners below Prado Dam and the property rights of existing leaseholders and/or landowners above Prado Dam.

(9) FOUNTAIN CREEK, PUEBLO, COLORADO

Location.—Southeastern Colorado in the city of Pueblo.

Purpose.—Flood control; recreation.

Problem.—Low-lying areas of the urban residential area of Pueblo are faced with a continuing threat of floods that have the potential to cause substantial damage.

Recommended plan.—5,900 feet of riprap channel and 10,200 feet of levee on both banks of Fountain Creek.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—$7,800,000.

Federal first cost.—$6,600,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(10) METROPOLITAN DENVER AND SOUTH PLATTE RIVER AND TRIBUTARIES, COLORADO

Location.—South Platte River, 80 miles southwest of Denver.

Purpose.—Flood control.

Problem.—Flooding on Westerly Creek has occurred in 14 different years since 1942. The existing Kelly Road Dam no longer provides adequate protection. In part this is due to extensive development in the Denver-Aurora area which has greatly increased runoff. In part this is due to age and un-safe condition of this structure which must be operated in a way to allow some overtopping to prevent failure of the dam.

Recommended plan.—Kelly Road Dam would be modified for safety purposes. A new dam would be constructed on Lowry Air Force Base and a small amount of channelization would be placed up stream of the new Lowry Dam.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$9,800,000.

Federal first cost.—$9,080,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(11) OATES CREEK, GEORGIA

Location.—Augusta, Georgia.
Purpose.—Flood control.
Problem.—There is recurring flooding in the urbanized area of the Oates Creek Watershed with average annual damages of $2 million.
Recommended plan.—Modify and enlarge 2½ miles of channel, modify 15 bridges and construct a 6 feet-high 1,000 feet-long levee.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1981.
Total project cost.—$12,573,000.
Federal first cost.—$8,360,000.
Benefit/cost ratio.—2.1 to 1 at a discount rate of 7⅞ percent.

(12) AGANA RIVER, GUAM

Location.—Agana, the capitol of the Territory of Guam.
Purpose.—Flood Control.
Problem.—The Agana River courses through the main business center of the city and is subject to periodic flooding.
Recommended plan.—Construction of 1,700 feet of channel improvement and 4,900 feet of levees.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1978.
Total project cost.—$8,990,000.
Federal first cost.—$5,820,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(13) ALENAIO STREAM, HAWAII

Location.—The South Hilo District on the Island of Hawaii.
Purpose.—Flood control.
Problem.—The downtown area of Hilo has suffered major flooding in 1966, 1979, and 1980.
Recommended plan.—Construction of a 1,640 feet long by 35 feet wide channel and modification of 4 bridges. Undeveloped land in the flood plain will be regulated by the county government to minimize future damages.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1983.
Total project cost.—$7,983,000.
Federal first cost.—$4,579,000.
Benefit/cost ratio.—2.1 to 1 at a discount rate of 7⅞ percent.

(14) BIG WOOD RIVER AND TRIBUTARIES, IDAHO

Location.—Lower Wood River Basin in the vicinity of the cities of Gooding and Shoshone, Idaho.
Purpose.—Flood control.
Problem.—Periodic flooding has continuously caused damage to the cities of Gooding and Shoshone.
Recommended plan.—Construction of a diversion channel and two separate ponding facilities for off-stream diversions of Little Wood River flood flows.

Environmental impact statement.—Final statement submitted to the Council on Environmental Quality in November, 1978.
Total project cost.—$4,110,000.
Federal first cost.—$3,750,000.
Benefit/cost ratio.—2.6 to 1 at a discount rate of 7⅞ percent.

(15) NORTH BRANCH CHICAGO RIVER, ILLINOIS

Location.—North Chicago, Illinois metropolitan area.
Purpose.—Flood control.
Problem.—Flood damages to this residential area average $2 million annually, and with continued urbanization would greatly increase in the absence of project development.
Recommended plan.—Three 40 foot deep floodwater reservoirs would be constructed. Two of these below ground level excavations would be placed on the West Fork of the North Branch Chicago River and one on the Middle Fork of the North Branch Chicago River.
Environmental impact statement.—Draft final statement filed with the Environmental Protection Agency in June, 1983.
Total project cost.—$13,668,000.
Federal first cost.—$11,209,000.
Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.
Comment.— Authorization for construction is conditional upon completion of favorable report of the Chief of Engineers. (Section 212 of this Act.)

(16) ROCK RIVER AT ROCKFORD AND VICINITY, ILLINOIS

Location.—Loves Park, Winnebago County, Illinois.
Purpose.—Flood control.
Problem.—There are frequent flood damages due to over-flows from several large and small unnamed creeks.
Recommended plan.—Project features include 15,000 feet of concrete channel, 2,500 feet of levee 5 feet high, a 75,000 gallon/minute pumping plant, and a 90 acre ponding area.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1980.
Total project cost.—$27,970,000.
Federal first cost.—$22,800,000.
Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(17) LITTLE CALUMET RIVER, INDIANA

Location.—South of the southern end of Lake Michigan in northwestern Indiana along a 22 mile long reach of the Little Calumet River.
Purpose.—Flood control.
Problem.—Annual average flood damages for existing conditions along the Little Calumet River are estimated to total about $8.7 million, 90 percent of which occur to residential development. In addition, overbank flooding exacerbates poor drainage conditions which result in public health problems.
Recommended plan.—To be in accord with approval recommendations of the final report of the Chief of Engineers

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Environmental impact statement.—Final report must be filed with the Environmental Protection Agency prior to project construction.

Total project cost.—$56,800,000.

Federal first cost.—$56,800,000.

Benefit/cost ratio.—2.57 to 1 at a discount of 7⅞ percent.

Comments.—Section 212 of this Act makes authorization for construction conditional upon completion of a favorable report of the Chief of Engineers. The District Engineer's plan has been authorized because it provides full flood protection to the residents of Gary, Indiana, does not force the relocation of any residences, provides full protection for Interstate 80/94, and provides for more adequate recreational opportunities.

(18) DES MOINES RIVER BASIN, IOWA

Location.—Des Moines River Basin in Central Iowa and Southwestern Minnesota.

Purpose.—Flood control and recreation.

Problem.—Severe flooding has occurred in the City of West Des Moines four times in this century.

Recommended plan.—Construction of 5 miles of levees and floodwalls.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1979.

Total project cost.—$14,400,000

Federal first cost.—$11,200,000.

Benefit/cost ratio.—1.6 to 1 at a discount of 7⅞ percent.

(19) GREEN BAY LEVEE AND DRAINAGE DISTRICT NO. 3, IOWA

Location.—Along the Mississippi River between the cities of Burlington and Fort Madison, Iowa.

Purpose.—Flood control.

Problem.—In spite of an existing project there remains a residual flooding threat from the Mississippi River. The most recent major flooding occurred in 1973.

Recommended plan.—Raising of 17.2 miles of existing levees 3 feet and relocation of the existing road.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in October, 1980.

Total project cost.—$6,340,000.

Federal first cost.—$5,480,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(20) PERRY CREEK, IOWA

Location.—Perry Creek Basin in and upstream from the city of Sioux City, Iowa.

Purpose.—Flood control and recreation.

Problem.—The city of Sioux City is not protected from flooding similar to the flood of record which occurred in 1949 and would today cause $4 million in annualized damages.

Recommended plan.—Improved channelization and construction of a second conduit from the entrance of the existing facility to the Missouri River to carry 100 year flood.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$40,900,000.

Federal first cost.—$20,900,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(21) HALSTEAD, KANSAS

Location.—Central Kansas, 25 miles north of the city of Wichita.

Purpose.—Flood control.

Problems.—City of Halstead has no protection from the 100 year flood which would inundate the entire city.

Recommended plan.—Construction of 21,000 feet of levee and floodwall along Little Arkansas River and straightening river channel to a 60 foot bottom width.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$7,500,000.

Federal first cost.—$6,130,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(22) ATCHAFALAYA BASIN FLOODWAY, LOUISIANA

Location.—South Central Louisiana including the Red River backwater area, the area between the East and West Atchafalaya Basin Protection Levees, and the backwater area east and northeast of Morgan City.

Purpose.—Flood control.

Problem.—There is a need to modify the authorized Atchafalaya flood control project to carry Mississippi River flood waters to the Gulf of Mexico and to preserve and enhance the unique wetland characteristics of the floodway.

Recommended plan.—The full recommended plan includes features previously authorized and environmental protection and nonstructural aspects authorized here.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1982.

Total protection cost.—$195,000,000.

Federal first cost.—$195,000,000.

Benefit/cost ratio.—Not applicable.

(23) BUSHLEY BAYOU, LOUISIANA

Location.—East-central Louisiana 35 miles northeast of the city of Alexandria.

Purpose.—Flood control.

Problem.—Backwater floods of lengthy duration occur on the average, twice annually.

Recommended plan.—Construction of 40 miles of levee; a pumping plant and gravity drainage structures.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1982.

Total protection cost.—$42,800,000.
Federal first cost.—$42,800,000.
Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(24) LOUISIANA STATE PENITENTIARY LEVEE, LOUISIANA

Location.—Bank of the Mississippi River in West Feliciana Parish 50 miles northwest of Baton Rouge.
Purpose.—Flood control.
Problem.—The penitentiary is not protected from the Mississippi River project design flood.
Recommended plan.—Mainline levee will be raised 8.5 feet and existing drainage structures would be replaced.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1972.
Total project cost.—$21,670,000.
Federal first cost.—$20,500,000.
Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(25) QUINCY COASTAL STREAMS, MASSACHUSETTS

Location.—The city of Quincy, Mass.
Purpose.—Flood control.
Problem.—Town of Quincy has inadequate protection against flood of record which occurred in 1955 and would today cause $14 million in damages.
Recommended plan.—Construction includes a new spillway and outlet on the existing Old Quincy Reservoir and a below ground relief tunnel in the town of Quincy 12 feet wide and 4,000 feet long.
Environmental impact statement.—An environmental assessment finding of no significant impact was filed on September 29, 1980.
Total project cost.—$25,300,000.
Federal first cost.—$25,100,000.
Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(26) ST. PAUL, MINNESOTA

Location.—On the Mississippi River opposite downtown St. Paul, Minnesota.
Purpose.—Flood control.
Problem.—Existing project completed in 1964 developed on basis of 1952 record flood. Floods in 1965 and 1969 exceeded the 1952 flood and further such events pose a threat to the existing project.
Recommended plan.—Existing levees and floodwalls would be raised 4 feet.
Environmental impact statement.—A finding of no significant impact was filed in the 1981 feasibility report.
Total project cost.—$7,914,000.
Federal first cost.—$7,200,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(27) REDWOOD RIVER AT MARSHALL, MINNESOTA

Location.—Southwestern Minnesota 90 miles west of the city of Mankato.
Purpose.—Flood control; recreation.

Problem.—Existing project channels lack the capacity to convey the design flow to the existing diversion channel without damaging overbank and backwater effects.

Recommended plan.—Construction includes channel widening, levees, construction of an overflow diversion structure with control and outlet works and recreation facilities.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$3,900,000.

Federal first cost.—$3,130,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(28) ROOT RIVER BASIN, MINNESOTA

Location.—Southeast of Rochester, Minnesota.

Purpose.—Flood control.

Problem.—Annual flooding in the basin adversely affects agricultural lands and the community of Houston.

Recommended plan.—Construction of 3 miles of levee at the town of Houston and an interior drainage pumping station.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1978.

Total Project cost.—$8,250,000.

Federal first cost.—$8,150,000.

Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

(29) SOUTH FORK ZUMBRO RIVER, MINNESOTA

Location.—Rochester, Minnesota.

Purpose.—Flood Control; Recreation.

Problem.—Over one-third of the city of Rochester lies in the Zumbro River flood plain. The 100 year flood would cause over $100 million in damages.

Recommended plan.—Construction includes deepening and widening the Zumbro River channel, Bear Creek, and Cascade Creek and the construction of 2 short levees.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1979.

Total Project cost.—$87,700,000.

Federal first cost.—$77,800,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

Comments.—This is the companion project to a Soil Conservation Service project in the same area approved for construction last year.

(30) HORN LAKE AND TRIBUTARIES TENNESSEE AND MISSISSIPPI

Location.—De Soto County, Mississippi and Shelby County, Tennessee.

Purpose.—Flood control; recreation.

Problem.—Frequent flooding in both urban and agriculture areas of the basin.

Recommended plan.—Construction of channel improvments to 6 miles of Horn Lake Creek and Cow Pen Creek and channel improvement on 5 miles of Southaven Creek and Rock Creek.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1982.
Total Project cost.—$3,600,000.
Federal first cost.—$2,450,000.
Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

(31) SOWASHEE CREEK, MISSISSIPPI

Location.—City of Meridian, Mississippi.
Purpose.—Flood control.
Problem.—The existing project, completed in 1965, has proved inadequate to deal with severe periodic flooding.
Recommended plan.—Construction includes modifications to 6 bridges and replacement of a 7th bridge together with channel enlargement and a 3 phase snagging and clearing program.
Environmental impact statement.—Draft final statement filed with the Environmental Protection Agency in October, 1983.
Total project cost.—$15,700,000.
Federal first cost.—$10,100,000.
Benefit/cost ratio.—2.0 to 1 at a discount rate of 7⅞ percent.
Comments.—Authorization for construction is conditioned upon completion of favorable report of the Chief of Engineers. (Section 212 of this Act.)

(32) BRUSH CREEK AND TRIBUTARIES, KANSAS AND MISSOURI

Location.—Kansas City metropolitan area.
Purpose.—Flood control.
Problem.—The flood of record caused $66 million in damages to this urbanized area in 1977.
Recommended plan.—The deepening of Brush Creek channel by 5 feet over a length of 7,500 feet and replacement of 2 bridges.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1982.
Total project cost.—$14,650,000.
Federal first cost.—$12,100,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(33) MALINE CREEK, MISSOURI

Location.—St. Louis County adjacent to the northern boundary of the city of St. Louis.
Purpose.—Flood control; recreation.
Problem.—Flood damages along Maline Creek were $16.5 million in 1979.
Recommended plan.—Project features include dry detention reservoirs, 3 miles of channel widening, 5 bridge emplacements, 5 miles of low level floodwalls, 10 miles of recreational trails and 18 aquatic habitat structures.
Environmental impact statement.—Final statement published in Federal Register on July 23, 1982.
Total project cost.—$57,400,000.
Federal first cost.—$37,200,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(34) ST. JOHNS BAYOU AND NEW MADRID FLOODWAY, MISSOURI

Location.—New Madrid, Scott, and Mississippi Counties, Missouri.

Purpose.—Flood control; land use.

Problem.—Frequent periodic flooding in the area of Sikeston, Missouri and the New Madrid Floodway.

Recommended plan.—Construction of rural and urban channel improvements on 136 miles of rural channel and 8 miles of urban channel, 2 pumping stations and environmental mitigation measures including acquisition of 2,500 acres of land at Ten Mile Pond.

Environmetal impact statement.—Final statement filed with the Environmental Protection Agency in July, 1982.

Total project cost.—$108,000,000.

Federal first cost.—$69,000,000.

Benefit/cost ratio.—1.6 to 1 at a discount rate of 7⅞ percent.

(35) ROBINSON'S BRANCH, RAHWAY RIVER, NEW JERSEY

Location.—City of Rahway and the townships of Clark and Scotch Plains, Union County, New Jersey, about 10 miles southwest of Newark, New Jersey.

Purpose.—Flood control.

Problem.—Area is subject to recurrent fluvial flooding. The last major flood in 1973 caused $1.1 million in damages.

Recommended plan.—Construction of channel improvement, levees, and floodwalls in Clark and Scotch Plains; a concrete flume, channel improvement, and levees and floodwalls in the City of Rahway.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1978.

Total project cost.—$18,000,000.

Federal first cost.—$13,500,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(36) RAHWAY RIVER AND VAN WINKLES BROOK, NEW JERSEY

Location.—Townships of Springfield and Union, Union County, New Jersey, about 8 miles southwest of Newark, New Jersey.

Purpose.—Flood control.

Problem.—Recurrent flooding has occurred in Springfield and Union townships. The last major flood in 1973 caused $2.5 million in damages.

Recommended plan.—Principal features include 6,300 feet of levee; 19,000 feet of channalization; and alterations to 7 bridges.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1978.

Total project cost.—$16,400,000.

Federal first cost.—$12,300,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

(37) GREEN BROOK SUBBASIN, RARITAN RIVER BASIN, NEW JERSEY

Location.—Counties of Somerset, Middlesex, and Union about 15 miles southwest of Newark, New Jersey.

Purpose.—Flood control.

Problem.—Recurrent flooding has occurred in the basin, with the most recent major flood in 1973 causing over $84 million in damages.

Recommended plan.—Major project features include 89,000 feet of levees; 16,000 feet of stream realignment; 7 pumping stations; and 13 bridge replacements.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—$98,000,000.

Federal first cost.—$72,900,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(38) MIDDLE RIO GRANDE FLOOD PROTECTION, NEW MEXICO

Location.—Between Bernalillo and Belen in the center of the State of New Mexico.

Purpose.—Flood control.

Problem.—Residents of low-lying areas continue to suffer average annual flood damage of $6 million regardless of existing flood control projects.

Recommended plan.—Rehabilitation of 62.3 miles of levees.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1980.

Total project cost.—$41,300,000.

Federal first cost.—$39,200,000.

Benefit/Cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

Comments.—The Secretary is authorized to also increase flood protection through dredging of the bed of the Rio Grande in the vicinity of Albuquerque, New Mexico to an elevation lower than existed on the date of enactment of this Act.

(39) PUERCO RIVER AND TRIBUTARIES, NEW MEXICO

Location.—City of Gallup in McKinley County, in northwestern New Mexico about 135 miles west of Albuquerque.

Purpose.—Flood control; recreation.

Problem.—The city of Gallup incures periodic floods. The most recent major flood in 1972 caused $1.3 million in damages.

Recommended plan.—Project features include levee rehabilitation, rock removal, a new inlet structure, and a bicycle trail.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$3,331,000.

Federal first cost.—$3,220,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

(40) CAZENOVIA CREEK WATERSHED, NEW YORK

Location.—West Seneca, in Erie County, New York.

Purpose.—Flood control.

Problem.—There is recurrent flooding along the urbanized area of Cazenovia Creek most commonly during late winter and early spring when high water combines with ice jams along Cazenovia Creek.

Recommended plan.—Construction of a low concrete dam and ice retaining boom.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1977.

Total project cost.—$2,286,000.

Federal first cost.—$1,910,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(41) MAMARONECK AND SHELDRAKE RIVERS BASIN AND BYRAM RIVER BASIN, NEW YORK AND CONNECTICUT

Location.—Village of Mamaroneck, Westchester County, New York; and Port Chester, New York; and Greenwich, Connecticut, all northeast of New York City.

Purpose.—Flood control.

Problem.—The last major flood in the basin in 1975 caused damages of $37.5 million in the Mamaroneck and Sheldrake Basin, and $0.8 million in damages in the Byram River Basin.

Recommended plan.—Project features include channel modification, levees floodwalls, and 4 bridge replacements.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in April, 1981.

Total project cost.—$58,800,000.

Federal first cost.—$44,100,000.

Benefit/cost ratio.—1.0 to 1 at a discount rate of 7⅞ percent.

(42) HOCKING RIVER AT LOGAN AND NELSONVILLE, OHIO

Location.—City of Logan in Hocking County, Ohio; city of Nelsonville in Athens County, Ohio, both about 51 miles above the mouth of the Hocking River.

Purpose.—Flood control; recreation.

Problem.—There is frequent flooding at both of these urban areas. Estimated annual damages amounts to $3,398,000 at Nelsonville and $1,613,000 at Logan.

Recommended plan.—Channel modification and levees at Logan and channel widening and floodway construction at Nelsonville

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—Logan: $7,233,000; Nelsonville: $7,468,000.

Federal first cost.—Logan: $6,180,000; Nelsonville: $6,480,000.

Benefit/cost ratio.—Logan: 1.6 to 1 at a discount rate of 7⅞ percent; Nelsonville: 3.6 to 1 at a discount rate of 7⅞ percent.

(43) MIAMI RIVER, FAIRFIELD, OHIO

Location.—The city of Fairfield, Ohio, 15 Miles northwest of Cincinatti.

Purpose.—Flood control; recreation.

Problem.—Recurrent flooding, most recently in 1979 has caused damages in excess of $1 million at Fairfield.

Recommended plan.—Construction of 3 dry bed reservoirs and channel enlargement.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1982.

Total project cost.—$13,480,000.
Federal first cost.—$9,180,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(44) MIAMI RIVER, LITTLE MIAMI RIVER, OHIO

Location.—West Carrollton, Moraine, and Miami (Townships, 7 miles south of Dayton, Ohio.
Purpose.—Flood control, recreation.
Problem.—There is periodic flooding of the study area and a need for urban recreation opportunities.
Recommended plan.—Project features include 1.4 miles of channel enlargement and replacement of a railroad bridge.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.
Total project cost.—$8,490,000.
Federal first cost.—$5,950,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(45) MUSKINGUM RIVER BASIN, OHIO

Location.—Cities of Mansfield, Ohio in Richland County and Killbuck, Ohio on Killbuck Creek in Holmes County.
Purpose.—Flood control, recreation.
Problem.—There is frequent flood damage to the cities of Mansfield and Killbuck from Muskingum River floods.
Recommended plan.—Channel modification at Mansfield and levee construction at Killbuck.
Environmental impact statement.—Final Statement filed with the Environmental Protection Agency in May, 1979.
Total project cost.—Mansfield: $4,550,000; Killbuck: $6,990,000.
Federal first cost.—Mansfield: $3,500,000; Killbuck: $6,420,000.
Benefit/cost ratio.—Mansfield: 2.6 to 1 at a discount rate of 7⅞ percent; Killbuck: 1.2 to 1 at a discount rate of 7⅞ percent.

(46) SCIOTO RIVER AT NORTH CHILLICOTHE, OHIO

Location.—The city of Chillicothe, 49 miles south of Columbus, Ohio.
Purpose.—Flood control; recreation.
Problem.—There is periodic flooding of Chillicothe and the need for outdoor recreation facilities.
Recommended plan.—Principle project feature is the construction of a 13,400 foot earth levee.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.
Total project cost.—$10,760,000.
Federal first cost.—$9,070,000.
Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

(47) FRYS CREEK, OKLAHOMA

Location.—Within the city of Bixby, Oklahoma.
Purpose.—Flood control.

Problem.—Seven floods causing severe property damage have occurred in the City of Bixby in the last 13 years, principally to residential areas.

Recommended plan.—Channelization and construction of 3,500 feet of levee 3-feet high.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1983.

Total project cost.—$11,700,000.

Federal first cost.—$8,500,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(48) MINGO CREEK, OKLAHOMA

Location.—Within the city of Tulsa, Oklahoma.

Purpose.—Flood control.

Problem.—Since 1959, nine major floods have been recorded on Mingo Creek. In 1976 the largest flood occurred causing $48 million in damages.

Recommended plan.—7.5 miles of channelization, construction of detention ponds, and preservation of 35 acres of bottom land timber.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June 1981.

Total project cost.—$117,000,000.

Federal first cost.—$87,800,000.

Benefit/cost ratio.—2.7 to 1 at a discount rate of 7⅞ percent.

(49) PARKER LAKE, MUDDY BOGGY CREEK, OKLAHOMA

Location.—Coal, Pontotoc, and Atoka Counties, Oklahoma.

Purpose.—Flood control; water supply; recreation.

Problem.—Primary project benefit (83 percent) is for water supply for central Oklahoma.

Recommended plan.—Construction of a multiple-purpose reservoir with a storage capacity of 237,000 acre-feet of water.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$43,800,000.

Federal first cost.—$43,800,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(50) HARRISBURG, PENNSYLVANIA

Location.—City of Harrisburg, Pennsylvania.

Purpose.—Flood control.

Problem.—Recurring floods in the city has caused repeated damage with the 1972 flood causing $85 million in damages.

Recommended plan.—Construction of a dry dam, 3 miles of channelization, and a 3,800-foot floodwall.

Environmental impact statement.—Final statement filed with the Enviromental Protection Agency in March, 1981.

Total project cost.—$123,000,000.

Federal first cost.—$102,000,000.

Benefit/cost ratio.—1.6 to 1 at a discount rate of 7⅞ percent.

(51) LOCK HAVEN, PENNSYLVANIA

Location.—City of Lock Haven in Clinton County, Pennsylvania.
Purpose.—Flood control.
Problem.—The city of Lock Haven has been subjected to floods 19 times in 130 years.
Recommended plan.—Construction of 24,500 feet of levee, 6,500 feet of floodwall, and 4 pumping stations.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.
Total project cost.—$73,400,000.
Federal first cost.—$65,500,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(52) SAW MILL RUN, PITTSBURGH, PENNSYLVANIA

Location.—On Saw Mill Run in Pittsburgh, Pennsylvania.
Purpose.—Flood control.
Problem.—Existing channel is not able to contain flood flows.
Recommended plan.—Channel deepening and minor realignment.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1978.
Total project cost.—$7,310,000.
Federal first cost.—$7,020,000.
Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(53) WYOMING VALLEY, PENNSYLVANIA

Location.—Luzerne County, Pennsylvania.
Purpose.—Flood control.
Problem.—Flooding in 1972 caused $720 million in damages to property in the valley.
Recommended plan.—Raising of existing levee by 5 to 7 feet.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in January, 1983.
Total project cost.—$217,400,000.
Federal first cost.—$212,900,000.
Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(54) BIG RIVER RESERVOIR, RHODE ISLAND

Location.—Central Rhode Island including the city of Providence.
Purpose.—Flood control; water supply; recreation.
Problem.—Primary need is for new water supply; potential for flood damage also exists on lower Pawtuxet River.
Recommended plan.—Primary project feature is a 70 foot high multipurpose reservoir with 73,600 acre-feet of water supply storage.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1982.
Total project cost.—$78,600,000.
Federal first cost.—$40,900,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.
Comments.—Title VII authorizes construction of the Big River Reservoir project in Rhode Island. The project will entail a multiple purpose reservoir providing flood control, water supply and rec-

reational benefits in the Pawtuxet River Basin. This project has been approved by the Chief of Engineers, and authorization is provided in this legislation for $40,900,000 of which all but $7.8 million will eventually be returned to the Federal Government.

The Big River Reservoir project will be needed in order to fulfill Rhode Island's future water supply needs and to alleviate flooding problems in several communities. In order to assure the continued accurate planning of the project, the Corps of Engineers should review its population and water consumption projections according to the most recent available data used for state planning purposes.

The Corps of Engineers should also work with state and Federal agencies during the Advanced Engineering and Design phase to insure that all environmental consequences of the project are minimized to the greatest possible extent, including the study of alternative flow releases to alleviate downstream water quality problems.

(55) NONCONNAH CREEK, TENNESSEE

Location.—Nonconnah Creek Basin in the vicinity of, and including part of the city of Memphis, Tennessee.

Purpose.—Flood control; recreation.

Problem.—Periodic flooding.

Recommended plan.—Project features include approximately 18 miles of channel enlargement, and 30 miles of trails and a nature area.

Environmental impact statement.—Final supplement filed with the Environmental Protection Agency in July, 1982.

Total project cost.—$26,400,000.

Federal first cost.—$19,200,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

Comments.—The Soil Conservation Service portion of this total project is authorized for construction in section 320 of this Act.

(56) BUFFALO BAYOU AND TRIBUTARIES, TEXAS

Location.—Suburban Houston, Texas.

Purpose.—Flood control.

Problem.—Flooding in urban areas along Cole and Vogel Creeks, tributaries of Buffalo Bayou, and White Oak Bayou upstream from the mouth of Cole Creek.

Recommended plan.—Construction includes channel enlargement, rectification and partial paving of 9.2 miles of White Oak Bayou, 4.9 miles of Cole Creek, and 4.5 miles of Vogel Creek to provide Standard Project Flood Protection. Nonstructural flood plain management and beautification measures are included.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1979.

Total project cost.—$85,246,000.

Federal first cost.—$75,000,000.

Benefit/cost ratio.—1.6 to 1 at a discount rate of 7⅞ percent.

(57) BOGGY CREEK, COLORADO RIVER AND TRIBUTARIES, TEXAS

Location.—Austin, Texas.

Purpose.—Flood control; recreation.

Problem.—Serious flooding along Boggy Creek and its two primary tributaries, Tennehille Branch and Fort Branch.

Recommended plan.—Structural measures, including construction of a 2.2 mile concrete channel and 0.7 miles of grass-lined channel. Land will be acquired to mitigate habitat losses and provide environmental quality enhancement.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1980.

Total project cost.—$19,400,000.

Federal first cost.—$13,800,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(58) LAKE WICHITA, HOLLIDAY CREEK, TEXAS

Location.—Wichita Falls, Texas.

Purpose.—Flood control.

Problem.—Serious flooding in urban areas below the dam, as well as periodic flooding in commercial and residential areas around the lake.

Recommended plan.—Project includes structural measures, including raising and repairing the existing Lake Wichita Dam embankment, constructing a new uncontrolled spillway and excavating an improved channel downstream of the dam to the mouth of Holliday Creek. The plan would provide 100-year flood protection and eliminate the possibility of a major dam failure.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$25,500,000.

Federal first cost.—$14,900,000.

Benefit/cost ratio.—1.9 to 1 at a discount rate of 7⅞ percent.

(59) LOWER RIO GRANDE BASIN, TEXAS

Location.—Hidalgo, Willacy, and Cameron Counties, Texas.

Purpose.—Flood control.

Problem.—Floodwater damage, inadequate drainage, saline soils, and erosion.

Recommended plan.—Project includes a combination of structural and nonstructural measures, including the construction of two major channels, and channel improvements and bank protection along the Arroyo Colorado.

Environmental impact statement.—Draft statement was filed with the Environmental Protection Agency in September, 1980.

Total project cost.—$180,631,000.

Federal first cost.—$109,400,000.

Benefit/cost ratio.—2.3 to 1 at a discount rate of 7⅞ percent.

Comments.—Authorization for construction is conditioned upon completion of favorable report of the Chief of Engineers (section 212 of this Act).

(60) JAMES RIVER BASIN, VIRGINIA

Location.—The James River Basin in the city of Richmond, Virginia.

Purpose.—Flood control.

Problem.—Flooding in Richmond in 1969 and 1972 caused a total of $82 million in damages.

Recommended plan.—Construction of floodwalls and levees on both sides of the James River in downtown Richmond.

Environmental impact statement.—Final supplement to final statement filed with the Environmental Protection Agency in July, 1981.

Total project cost.—$93,800,000.

Federal first cost.—$79,600,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(61) SIMS BAYOU, TEXAS

Location.—Within the corporate city limits of Houston, South Houston, and Missouri City, Texas.

Purpose.—Flood control and recreation.

Problem.—Flat topography, increasing urbanization, and inadequate stream capacity in Sims Bayou combine to make flooding an increasing problem.

Recommended plan.—Channel enlargement, environmental enhancement measures, and recreational development.

Environmental impact statement.—Draft statement circulated for field level agency and public review in 1983.

Total project cost.—$134,433,000.

Federal first cost.—$96,868,000.

Benefit/cost ratio.—9.87 to 1 for flood control and 2.12 to 1 for recreation, both at a discount rate of 7⅞ percent.

Comments.—Section 212 of this Act makes authorization for construction conditional on the completion of the favorable report of the Chief of Engineers.

(62) CHEHALIS RIVER, WASHINGTON

Location.—Cities of South Aberdeen and Cosmopolis, in southwestern Washington.

Purpose.—Flood control.

Problem.—Recurring flooding of these cities by the Chehalis River. THe 1933 record flood caused damages in current prices of $13 million.

Recommended plan.—Construction of 4.7 miles of levees and 5 pumping stations.

Environmental impact statement.—Final statement filed with Council on Environmental Quality in November, 1978.

Total project cost.—$20,360,000.

Federal first cost.—$19,300,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(63) YAKIMA UNION GAP, WASHINGTON

Location.—Yakima County, Washington.

Purpose.—Flood control.

Problem.—Periodic flooding on Yakima River Flood Plain, most recently in 1975 and 1977. Average annual damages are $1.2 million.

Recommended plan.—Raising of existing levees.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$8,820,000.

Federal first cost.—$8,640,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

The following hydroelectric power projects are authorized by section 701(b):

(1) SCAMMON BAY, ALASKA

Location.—Village of Scammon Bay, an isolated Eskimo Village in the Yukon-Kuskokwim Delta region of southwestern Alaska.

Purpose.—Hydropower.

Problem.—The only present sources of electricity for the village are diesel generators which have a high fuel cost.

Recommended plan.—Construction of a small diversion structure, penstock, and a powerhouse with a single turbine and generator.

Environmental impact statement.—A finding of No Significant Impact was signed by the District Engineer in March, 1982.

Total project cost.—$1,483,000.

Federal first cost.—$1,483,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(2) SOUTH CENTRAL RAILBELT AREA, ALASKA

Location.—Community of Valdez, at the head of Port Valdez about 115 miles east of Anchorage, Alaska, and the interior communities of the Copper River Basin which lie to the north of Valdez.

Purpose.—Hydropower.

Problem.—Area currently relies on diesel generators for electric power.

Recommended plan.—Construction of a power tunnel and powerhouse at Allison Lake and a transmission line. Plant would have a 8,000 kilowatt generation capacity.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1982.

Total project cost.—$40,500,000.

Federal first cost.—$40,500,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(3) MURRAY LOCK AND DAM, ARKANSAS

Location.—On the Arkansas River approximately five miles northwest of Little Rock, Arkansas.

Purpose.—Hydropower.

Problem.—Need for additional electrical energy in the region.

Recommended plan.—Construction of a powerhouse adjacent to the existing Murray Lock and Dam along with the necessary approach and tailrace facilities. Generating capacity will total 37,500 kilowatts.

Environmental impact statement.—Finding of no significant impact was signed by the District Engineer in October, 1980.

Total project cost.—$92,900,000.

Federal first cost.—$92,900,000.
Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

(4) ARKANSAS RIVER AND TRIBUTARIES, ARKANSAS AND OKLAHOMA

Location.—Lock and Dam No. 13 is located on the Arkansas River approximately 3 miles east of Fort Smith, Arkansas. Lock and Dam No. 9 is located on the Arkansas River about 3 miles west of Marrilton, Arkansas. Toad Suck Ferry Lock and Dam is located on the Arkansas River approximately 5 miles west of Conway, Arkansas.
Purpose.—Hydropower.
Problem.—Need for additional electrical energy in the region.
Recommended plan.—Construction of a 37,500 kilowatt powerhouse and associated channel, tailrace and appurtenances at Lock and Dam No. 13. Construction of a 37,500 kilowatt powerhouse and associated channel, tailrace, and appurtenances at Lock and Dam No. 9 and construction of a 15,000 kilowatt powerhouse and associated channel, tailrace, and appurtenances at Toad Suck Ferry Lock and Dam.
Environmental impact statement.—Finding of no significant impact was signed by the District Engineer in January, 1982.
Total project cost.—$260,300,000.
Federal first cost.—$260,300,000.
Benefit/cost ratio.—1.9 to 1 at Lock and Dam No. 13, 1.8 to 1 at Lock and Dam No. 9, and 1.2 to 1 at Toad Suck Ferry Lock and Dam; all at a discount rate of 7⅞ percent.

(5) METROPOLITAN ATLANTA AREA WATER RESOURCES MANAGEMENT STUDY, GEORGIA

Location.—Clayton, Cobb, Douglas, Rockdale, DeKalb, Fulton, Gwinnett, and parts of contiguous counties in the Piedmont Province of north-central Georgia.
Purpose.—Water supply and hydropower.
Problem.—Rapid growth of the Metropolitan Atlanta Area has resulted in the need for additional flood control measures and additional electrical generating capacity.
Recommended plan.—Construction of a reregulation dam and reservoir on the Chattahooche River 6.3 miles downstream of Buford Dam.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1981.
Total project cost.—$24,500,000.
Federal first cost.—$24,500,000.
Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

(6) LUCKY PEAK DAM AND LAKE, IDAHO

Location.—About 10 miles southeast of Boise, Idaho on the Boise River.
Purpose.—Hydropower.
Problem.—Need for additional electrical energy in the area primarily for irrigation purposes and low quality and quantity of streamflow during certain periods of the year.

Recommended plan.—Construction of a 75,000 kilowatt hydroelectric facility at Lucky Peak Dam with an associated modification to the existing outlet tunnel.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$98,700,000.

Federal first cost.—$98,700,000.

Benefit/cost ratio.—2.2 to 1 at a discount rate of 7⅞ percent.

Comments.—Construction of the second outlet for the Lucky Peak Dam which was authorized by the Water Resources Development Act of 1976 must be completed prior to any modification of the existing outlet tunnel.

(7) W. D. MAYO LOCK AND DAM 14, OKLAHOMA

Location.—Nine miles southwest of Fort Smith, Arkansas on theMclellan-Kerr Arkansas Navigation System in Oklahoma.

Purpose.—Hydropower.

Problem.—Need for addtional electrical generation capacity in the region.

Recommended plan.—Construction of a submersible powerhouse containing six turbines with a combined capacity of 44,000 kilowatts and associated extrance and exit channels.

Environmental impact statement.—Finding of no significant impact in the Chief of Engineers report dated December 23, 1981.

Total project cost.—$112,100,000.

Federal first cost.—$112,100,000.

Benefit/cost ratio.—2.3 to 1 at a discount rate of 7⅞ percent.

(8) BLUE RIVER LAKE, OREGON

Location.—On the Blue River about 42 miles east of Eugene, Oregon.

Purpose.—Hydropower.

Problem.—Need for additional electrical generating capacity in the region.

Recommended plan.—Construction of a powerhouse with two different types of turbines and generators and associated entrance tunnel and tailrace.

Environmental impact statement.—Finding of no significant impact was signed by the District Engineer in December, 1981.

Total project cost.—$28,600,000.

Federal first cost.—$28,600,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(9) M'NARY LOCK AND DAM SECOND POWERHOUSE, OREGON AND WASHINGTON

Location.—At existing McNary Lock and Dam on the Columbia River two miles east of Umatilla, Oregon.

Purpose.—Hydropower.

Problem.—Need for additional electrical generating capacity in the region.

Recommended plan.—Construction of a second powerhouse containing six generators with a combined generating capacity of

742,000 kilowatts and associated appurtenances, with provision for four additional units if necessary. Also construction of fish passages, hatchery, beautification of existing levees and improved public facilities.

Environmental impact statement.—Final statement was filed with the Council on Environmental Quality in February, 1977.

Total project cost.—$600,000,000.

Federal first cost.—$600,000,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(10) GREGORY COUNTY HYDROELECTRIC PUMPED STORAGE FACILITY, STAGES I AND II, SOUTH DAKOTA

Location.—Adjacent to the west side of Lake Francis Case about 35 miles upstream of the Fort Randall Dam.

Purpose.—Hydropower, water supply, and irrigation.

Problem.—Need for additional electrical generating capacity in the region.

Recommended plan.—Construction of a 2,360 megawatt pumped storage facility to be done in two 1,180 megawatt stages four years apart. Project features include a forebay about 700 feet above Lake Francis Case, a powerhouse, intake structure, verticle shaft, and tunnel for water passage between the forebay and powerhouse, and a discharge channel into Lake Francis Case. Fish and wildlife measures are also included.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1982.

Total project cost.—$1,280,000,000.

Federal first cost.—$1,280,000,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

Comments.—Title 701(b)(10) of this Act authorizes additional associated multipurpose water supply and irrigation features as described in the final feasibility report of the District Engineers and authorized that up to $100 million of the Federal cost of the project may be used to construct these features provided that they are undertaken concurrently by the Bureau of Reclamation in accordance with Federal reclamation laws as a unit of the Pick-Sloan Missouri River Basis Plan.

Comments.—In addition to the pumped storage hydroelectric project, this provision authorizes associated multipurpose water supply and irrigation features, as described in the final feasibility report of the District Engineer, at a cost of $100,000,000. This additional work will be undertaken concurrently by the Bureau of Reclamation, in accordance with Federal reclamation laws, and shall be part of the Pick-Sloan Missouri Basin Program under provisions of section 9 of the Flood Control Act of 1944.

The Gregory County Hydroelectric Pumped Storage Facility, Stages I and II, also will constitute a part of the Pick-Sloan Program. As such, after its own payout, power revenues will contribute to the return of costs of irrigation units of the program.

The magnitude of the Gregory project is such that preference purchasers will not be able to absorb its entire output. Accordingly, at least partial funding through advances of funds from power purchasers, in accordance with section 601(a)(1), is encouraged. If that

occurs, sales would be made to non-preference purchasers on a firm basis. The Western Area Power Administration should undertake exploratory discussions with interested utilities, both consumer and investor owned, and coordinate with other power resources available to WAPA.

The following beach erosion control projects are authorized by section 701(c)(1):

(A) CHARLOTTE COUNTY, FLORIDA

Location.—Lower Gulf Coast of Florida about 75 miles south of Tampa, Florida.

Purpose.—Beach erosion control.

Problem.—Beach erosion along the Port Charlotte Beach State recreation area.

Recommended plan.—1.1 miles of beach would be restored and a 1,250 foot terminal groin would be constructed at the south end of the beachfill.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1981.

Total project cost.—$2,090,000.

Federal first cost.—$1,440,000.

Benefit/cost ratio.—4.0 to 1 at a discount rate of 7⅞ percent.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(B) INDIAN RIVER COUNTY, FLORIDA

Location.—East Central Coast of Florida midway between Jacksonville and Miami.

Purpose.—Beach erosion control.

Problem.—Beach erosion on shore fronting city of Vero Beach and along Sebastian Inlet State Park.

Recommended plan.—Restoration of 1.7 miles of beach at Vero Beach and 1.7 miles of beach at Sebastian Inlet State Park.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—$4,634,000.

Federal first cost.—$2,300,000.

Benefit/cost ratio.—2.0 to 1 at a discount rate of 7⅞ percent.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(C) PANAMA CITY BEACHES, FLORIDA

Location.—Bay County, Florida between the Panama City Harbor Entrance Channel and Philips Inlet.

Purpose.—Beach erosion control and hurricane protection.

Problem.—Beach erosion caused by natural forces, particularly severe storms and beach needs for recreational uses.

Recommended plan.—Construction of a sandfill storm dune stabilized by vegetation, and a protective beach along the Panama City Beaches to provide protection from beach erosion and hurricane storm surge.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1979.

Total project cost.—$38,897,000.

Federal first cost.—$26,200,000.

Benefit/cost ratio.—2.8 to 1 at a discount rate of 7⅞ percent.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(D) ST. JOHNS COUNTY, FLORIDA

Location.—Upper east coast of Florida.

Purpose.—Beach erosion control.

Problem.—Beach erosion at St. Augustine Beach.

Recommended plan.—Restoration of 2.5 miles of beach fronting St. Augustine, Florida and subsequent periodic nourishment of the restored beach.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—$9,041,000.

Federal first cost.—$7,660,000.

Benefit/cost ratio.—1.1 to 1.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(E) JEKYLL ISLAND, GEORGIA

Location.—Glynn County, Georgia about 7 miles Southeast of Brunswick, Georgia.

Purpose.—Beach erosion control.

Problem.—Severe beach erosion is beginning to endanger development on this State Park which is one of Georgia's major recreational resources.

Recommended plan.—Restoration of about 5 miles of beach, construction of a 1,000 foot rubble-mound groin at the north end of the restored beach, and periodic nourishment of the restored beach.

Environmental impact statement.—Final statement filed with the Council on Environmental Quality in June, 1976.

Total project cost.—$9,785,000.

Federal first cost.—$5,870,000.

Benefit/cost ratio.—2.19 to 1 at a discount rate of 7⅞ percent.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(F) CASINO BEACH, ILLINOIS SHORELINE, ILLINOIS

Location.—Jackson Park on the south side of Chicago along the Lake Michigan shore, about seven miles from downtown Chicago.

Purpose.—Beach erosion control.

Problem.—Existing jetty at Casino Beach is deteriorated resulting in erosion of Casino Beach and shoaling in the recreational boat harbor downdrift of the jetty.

Recommended plan.—Reconstruction of the existing jetty.

Environmental impact statement.—Finding of no significant impact was signed by the District Engineers in February, 1983.

Total project cost.—$4,158,000.

Federal first cost.—$4,158,000.

Benefit/cost ratio.—3.9 to 1 at a discount rate of 7⅞ percent.

Comments.—Section 212 of this act make authorization for construction conditional upon completion of the favorable report of the Chief of Engineers. Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(G) ATLANTIC COAST OF MARYLAND AND ASSATEAGUE ISLAND, VIRGINIA

Location.— Between Delaware Bay, Delaware and Chincoteague Inlet, Virginia.

Purpose.—Beach erosion control and hurricane protection.

Problem.—Severe beach erosion at highly developed Ocean City, Maryland. The entire reach of shoreline is subject to severe damage from high tides and waves during major storms. Erosion of the beach has averaged over 2 feet per year at Ocean City and over 30 feet per year on the northern portion of Assateague Island.

Recommended plan.—Restoration of the beach at Ocean City, construction of a 33,500 foot dune line, and the installation of 9,600 feet of steel sheet pile bulkhead for 100-year storm protection.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$32,600,000.

Federal first cost.—$21,000,000.

Benefit/cost ratio.—2.5 to 1 at a discount rate of 7⅞ percent.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(H) ATLANTIC COAST OF NEW YORK CITY FROM ROCKAWAY INLET TO NORTON POINT, NEW YORK

Location.—New York City metropolitan area.

Purpose.—Beach erosion control.

Problem.—Beach erosion at Coney Island and heavily used recreation beaches between Norton Point and Manhattan Beach and damage to residential and commercial development from hurricane tidal inundation.

Recommended plan.—Restoration of 2½ miles of beach with construction of a terminal groin at either end of the fill.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1978.

Total project cost.—$6,600,000.

Federal first cost.—$2,970,000.

Benefit/cost ratio.—1.0 to 1 at a discount rate of 7⅞ percent.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348). The authorized project includes 250 feet of sand fill west of the terminal groin at W. 37th Street. This fill is intended to mitigate the potential adverse environmental impacts of the project on the private beach at Sea Gate, a residential development. The Corps of Engineers should re-evaluate the potential impacts to Sea Gate and determine whether the fill should extend at least 2,000 feet from the W. 37th Street groin westward towards Norton Point, in order to fully protect the Sea Gate beach. If the Corps finds that the additional fill is necessary, it should be constructed and replenished in the same manner and according to the same schedule as the beach area east of W. 37th Street.

(I) MAUMEE BAY STATE PARK, OHIO

Location.—Lucas County on South Shore of Lake Erie 5 miles east of Toledo.

Purpose.— Beach erosion control.

Problem.—Continued erosion of shoreline due to wind and wave action.

Recommended plan.—Replenishment of beach and construction of rubblemound breakwaters and rubblemound development along east end of park.

Environmental impact statement.—Draft statement filed with the Environmental Protection Agency in May, 1982.

Total project cost.— $12,248,000.

Federal first cost.—$10,396,000.

Benefit/cost ratio.—1.65 to 1 at discount rate of 7⅞ percent.

Comments.—Section 212 of this act make authorization for construction conditional on the completion of the favorable report of the Chief of Engineers. Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(J) PRESQUE ISLE PENINSULA, ERIE, PENNSYLVANIA

Location.—South shore of Lake Erie at Erie, Pennsylvania.

Purpose.—Beach erosion control.

Problem.—Federal beach erosion control project constructed in cooperation with the State in 1956 has proven to be inadequate and has required sand replenishment periodically up to 1975 and annually since then to protect Federal structures and State park facilities.

Recommended plan.— Construction of a system of rubblemound breakwaters located offshore along the lakeward length of Presque Isle Peninsula and parallel to the shoreline.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$26,500,000.

Federal first cost.—$17,200,000.

Benefit/cost ration.—1.92 to 1 at a discount rate of 7⅞ percent.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

(K) FOLLY BEACH, SOUTH CAROLINA

Location.—Ten miles south of Charleston, South Carolina on Folly Island.

Purpose.—Beach erosion control.

Problem.—Beach front development and recreation are threatened by eroding shoreline.

Recommended plan.—Restoration of about 3 miles of beach and periodic nourishment of restored beach.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in July 1980.

Total project cost.—$3,145,000.

Federal first cost.—$1,110,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

Comments.—Project construction subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

The following fish and wildlife mitigation projects are authorized by section 701(d):

(1) FISH AND WILDLIFE PROGRAM FOR SACRAMENTO RIVER BANK PROTECTION PROJECT, CALIFORNIA, FIRST PHASE

Location.—Sacramento, California.

Purpose.—Fish and wildlife mitigation.

Problem.—Acquisition of lands for mitigation of fish and wildlife losses associated with the first phase of the Sacramento River Bank Protection Project was not originally authorized.

Recommended plan.—Acquisition of 260 acres of land for mitigation.

Environmental impact statement.—Final statement of the overall project which described the need for this mitigation was filed with the Environmental Protection Agency in June, 1973.

Total project cost.—$2,030,000

Federal first cost.—$2,030,000.

Benefit/cost ratio.—Not applicable

(2) RICHARD B. RUSSELL DAM AND LAKE, SAVANNAH RIVER, GEORGIA AND SOUTH CAROLINA

Location.—On the Piedmont Plateau within Anderson and Abbeville Counties, South Carolina, and Hartwell and Elbert Counties, Georgia.

Purpose.—Fish and wildlife mitigation.

Problem.—About 26,650 acres of land will be inundated by the Richard B. Russell Lake.

Recommended plan.—Acquisition of about 11,400 acres of wildlife lands in Georgia, about 10,100 acres in South Carolina, and more intensive wildlife management of 6,713 acres of federally-owned land at Clarks Hill Reservoir.

Environmental impact statement.—Final supplement to the final statement was made available in December, 1981.

Total project cost.—$18,700,000.

Federal first cost.—$18,700,000.

Benefit/cost ratio.—Not applicable.

(3) DAVENPORT, IOWA

Location.—At Nahant Marsh, a natural wetland which is located near the already authorized Federal flood protection project for the City of Davenport, Iowa.

Purpose.—Fish and wildlife mitigation.

Problem.—The Corps of Engineers flood control project which is authorized for Davenport, Iowa will have adverse effects on the Nahant Marsh, a unique wetland which is presently used for wildlife study. The flood control project would prevent the wetland from being periodically inundated by the Mississippi River and consequently destroy its wetland characteristics.

Recommended plan.—Acquisition and preservation of approximately 163 acres of marshland and the construction of structures to regulate water levels and floods into the marsh.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1978.

Total project cost.—$464,000.

Federal first cost.—$387,000.

Benefit/cost ratio.—Not applicable.

Comments.—Construction of the already authorized Federal flood control project at Davenport, Iowa is contingent on the authorization of this mitigation plan.

(4) WEST KENTUCKY TRIBUTARIES PROJECT, OBION CREEK, KENTUCKY

Location.—Graves, Hickman, Carlisle, and Fulton Counties in southwest Kentucky.

Purpose.—Fish and wildlife mitigation.

Problem.—Construction of authorized flood control project on Obion Creek will adversely affect fish and wildlife resources in the area.

Recommended plan.—Acquisition and development of about 6,000 acres of woodland and wetland habitat.

Environmental impact statement.—Final supplement to final statement was filed with the Environmental Protection Agency in October, 1978.

Total project cost.—$3,980,000.

Federal first cost.—$3,980,000.

Benefit/cost ratio.—Not applicable.

(5) DOWNSTREAM MEASURES AT HARRY S TRUMAN DAM AND RESERVOIR, MISSOURI

Location.—The channel and overbank areas on the Osage River downstream from the Harry S Truman Dam near Warwaw, Missouri for about 90 miles to Bagnell Dam.

Purpose.—Fish and wildlife mitigation.

Problem.—Hydropower operations at the Harry S Truman Dam and Reservoir will damage overbank vegetation for about 30 miles downstream.

Recommended plan.—Purchase of 510 acres of land along the Osage River which will be protected by levees constructed under existing Corps authority and management of that land for wildlife purposes.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1980.

Total project cost.—$2,000,000.

Federal first cost.—$2,000,000.

Benefit/cost ratio.—Not applicable.

(6) PLAN FOR REPLACEMENT OF THE TRIMBLE WILDLIFE AREA, MISSOURI

Location.—The Missouri River flood plain about 20 miles east of Kansas City, Missouri.

Purpose.—Fish and wildlife mitigation.

Problem.—Smithville Lake inundates a portion of the Trimble Wildlife Area formerly operated by the Missouri Department of Conservation thereby making the area unsuitable for the type of management the Department has established.

Recommended plan.—Acquisiton of 2,610 acres to replace the Trimble Wildlife Area.

Recommended plan.—Acquisition of 2,610 acres to replace the Trimble Wildlife Area.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1978.

Total project cost.—$7,770,000.

Federal first cost.—$7,770,000.

Benefit/cost ratio.—Not applicable.

(7) CAPE MAY INLET TO LOWER TOWNSHIP, NEW JERSEY

Location.—Atlantic Coast of New Jersey about 38 miles southwest of Atlantic City, New Jersey.

Purpose.—Fish and wildlife mitigation.

Problem.—Since the Federal Government constructed the Cape May Inlet jetties in 1911, the project area has experienced signifi-

cant beach erosion. The city of Cape May also experiences storm related flood damages.

Recommended plan.—Beachfill, and periodic nourishment, construction and maintenance of two new groins and the maintenance of seven existing groins, a shoreline monitoring program, and construction of a weir-breakwater at Cape May pending demonstration of need.

Environmental impact statement.—Final supplement to final statement filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$15,600,000.

Federal first cost.—$15,600,000.

Benefit/cost ratio.—Not applicable.

(8) COOPER LAKE AND CHANNELS, TEXAS

Location.—Cooper Lake is to be located near Commerce, Texas; the proposed mitigation area is located on the upper end of Wright Patman Lake.

Purpose.—Fish and wildlife mitigation.

Problem.—Significant habitat losses will occur with the construction of the Cooper Lake project.

Recommended plan.—Structural and non-structural measures, including development and management for wildlife on approximately 25,500 acres; development of three 0.5-acre waterholes per section; clearing and thinning of three 1-acre tracts per section in bottomland habitats; and development of two ground denning areas per section in semi-wooded and open-land habitats.

Environmental impact statement.—Final supplemental statement correcting the inadequacies of the final EIS filed with the Environmental Protection Agency in March, 1981

Total project cost.—$13,760,000.

Federal first cost.—$7,570,000.

Benefit/cost ratio.—Not applicable.

The following bank stabilization project is authorized by section 701(e).

(1) BETHEL, ALASKA

Location.—Kuskokowim River Valley, 400 miles west of Anchorage, Alaska.

Purpose.—Riverbank stabilization.

Problem.—Severe erosion of the riverbank at Bethel, Alaska resulting in adverse impacts on the surrounding 48 villages.

Recommended plan.—Installation of 5,000 feet of rock riprap bank protection to reduce erosion rate by 15 feet per year.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in April, 1983.

Total project cost.—$14,700,000.

Federal first cost.—$13,780,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

The following demonstration projects are authorized by section 701(f):

(1) LAVA FLOW CONTROL, ISLAND OF HAWAII

Location.—On the Island of Hawaii, extending from an area near the summit of Mauna Loa to Hilo.

Purpose.—Lava flow control.

Problem.—Potential for extensive property damage to the city of Hilo in the event of lava flows from the northeast rift of Mauna Loa.

Recommended plan.—In the event of a volcanic eruption, earthen diversion barriers for flowing lava would be constructed. An estimated nine miles of barriers would be built.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$4,326,000.

Federal first cost.—$3,950,000.

Benefit/cost ratio.—8.5 to 1 at a discount rate of 7⅞ percent.

(2) CABIN CREEK, WEST VIRGINIA

Location.—Within the Cabin Creek drainage area of Kanawha County, West Virginia.

Purpose.—Demonstration reclamation project.

Problem.—Serious chronic flooding of the Cabin Creek watershed and significant erosion and sedimentation caused by coal mining operations is also problematic.

Recommended plan.—Includes measures for erosion and sediment control, flood damage reduction, water quality control, water supply, recreation, and fish and wildlife enhancement.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1981.

Total project cost.—$41,000,000.

Federal first cost.—$32,800,000.

Benefit/cost ratio.—Not applicable.

TITLE VIII WATER SUPPLY LOANS

Title VIII establishes a new program of loans to the operators of municipal water supply systems. The Corps of Engineers is to make loans for a variety of purposes, including water conservation, rehabilitation of water distribution systems, improvements in water treatment systems, and expansion of water supply.

Section 801 outlines the congressional findings that water supply systems are deteriorating and that the Federal Government should aid rehabilitation and water conservation. The section also declares that the aid should be in the form of loans to water suppliers without alternative sources of financing.

Section 802 authorizes the Secretary to make loans to any public water supply system operator, either one operated by a State or local government or one regulated by a State government. No perference is given to government-owned or investor-owned water utilities.

A formula is established for allocating the funds loaned during each fiscal year. Half the funds are to be allocated to projects in each State in proportion to be State's population. If eligible water suppliers in a State apply for less than the State's potential alloca-

tion, the unclaimed funds become discretionary. These unclaimed funds, plus the remaining one-half of the total, are to be distributed at the Secretary's discretion.

Two restrictions are placed on the uses of the loans. The first, a general restriction, states that loans cannot be used for any purpose not related to water supply or conservation. In addition, loans may not be used for the acquisition of a water supply system by another system.

The Secretary should consider providing loans from the discretionary funds for the following four projects:

(1) Conveyance, distribution, pumping, and storage facilities for Dupage County, Ill. (Dupage County Commission);

(2) Conveyance facilities (Third Water Tunnel, First Stage) for New York City;

(3) Treatment, conveyance, distribution, and pumping facilities for Buffalo, N.Y., and

(4) Treatment, conveyance, distribution, and pumping facilities for Berlin, N.H.

Section 803 establishes the preocedures for applying for loans and the priorities which the Secretary should take into account. Applicants must submit by March 1 each year their requests to the Secretary for funds in the following fiscal year. The Secretary must make the decisions by September 1.

The loan applications must include a project plan and cost estimate, evidence that the applicant has or can obtain all necessary lands and water rights, evidence that the applicant can and will finance any parts of the project not covered by the loan, and a description of the improvements to water supply, fire protection, and recreation that will result from the project.

The Committee sets two criteria for deciding which projects should receive priority. The Secretary is first directed to give priority to water supply systems lacking other sources of financial assistance. This, typically, would apply to systems which, due to economic conditions, do not have access to bond markets.

The second priority covers expansion or improvements necessary to bring the water supply into compliance with the Safe Drinking Water Act. In the case of existing systems, improvements to water treatment facilities would be an appropriate use of the loans. Although expansion in general is not a high priority for water supply loans, it should be a priority when necessary to relieve a severe drinking water contamination problem.

An example of a candidate in this category is the village of Mastic Beach, Long Island, N.Y., where private wells are contaminated by benzene, ammonia, and other pollutants. Suffolk County is currently expanding its public water supply system to the affected areas, but funding is inadequate. A loan could speed up the process and reduce the risk of adverse health effects inherent in any further delay.

The two priorities listed are obviously not mutually exclsuive. Both the need for a project and the ability of the sponsor to raise the necessary funds should be considered. If a project has merit but alternative sources of financing are readily available under comparable terms, the funds from this program should go elsewhere.

Section 804 allows the Governor of any State to submit an annual prority list for water supply projects in the State. The Secretary has the option of using such lists as a guide to allocating loan funds.

Section 805 requires the Secretary to determine that each loan recipient will implement a model water conservation program (or equivalent) before the completion of the proposed project. A model water conservation program is defined to include plumbing codes promoting conservation in new construction, metering if feasible and appropriate, rate schedules encouraging conservation, a leak detection and repair program, public education, and a drought contingency plan.

This requirement should encourage water conservation, a primary goal of this title. All rehabilitation efforts should be accompanied by conservation measures. Some flexibility and consideration of site specific conditions is intended. For example, the Secretary will not necessarily adopt metering as a prerequisite to a loan in all cases.

Section 806 requires the Secretary to enter into an agreement with each loan recipient. The agreement must include the amount and schedule of the loan, the interest rate, the repayment period, and any other provisions the Secretary considers necessary to ensure repayment. The water supplier must maintain rates adequate to cover the repayment obligations under the agreement and the maintenance, repair, and rehabilitation costs of the system.

The interest rates will normally be set in accordance with the Treasury rates for the month preceding the fiscal year in which funds are initially provided and the repayment period will normally be 30 years or less. If the Secretary determines that these terms would cause a severe economic burden on the recipient of the loan, the terms provided in the Water Supply Act of 1958 can be used. These terms include a 50-year repayment period, with the possibility of up to a 10-year interest-free period.

Section 807 requires the loan repayments to be deposited in the general fund of the Treasury.

Section 808 directs the Secretary to issue any regulations necessary to carry out the objectives of this title.

Section 809 authorizes to be appropriated for water supply loans the following amounts:

> Fiscal year 1985: $400,000,000; fiscal year 1986: $500,000,000; fiscal year 1987: $600,000,000; fiscal year 1988: $700,000,000; and fiscal year 1989: $800,000,000.

The funds are to remain available until expended.

Section 810 requires the Secretary to prepare a report and submit it to Congress by September 30, 1988 (one year before the authorization for the program expires). The report is intended as a guide to Congress on the effectiveness of the loan program, whether it should be continued, and any changes that are desirable. The report will describe the characteristics of the loan applicants, the uses of the loans, water conservation measures adopted by loan recipients, the contribution of the program to water supply needs, the usefulness of State priority lists, the need for a continuation of the program, and additional methods of financing the rehabilitation and expansion of water supply systems.

Section 811 declares single purpose municipal and industrial water supply to be a legitimate Federal purpose. Traditionally the Federal water resource agencies have provided municipal and industrial water supply only as part of a multipurpose project.

Section 812 defines "expansion" as an increase in capacity and "rehabilitation" as the restoration of reliabiity or efficiency. The term "water supply system" is defined to include water production, pumping, treatment, and distribution facilities.

Section 813 cites this title the "Water Supply Rehabilitation and Conservation Act of 1983".

TITLE IX WATER RESOURCE PLANNING

Section 901 establishes a new National Board of Water Policy. The Board will have five members, including the Secretary of the Army, the Secretary of the Interior, the Secretary of Agriculture, the Administrator of the Environmental Protection Agency, and an independent chairman appointed by the President.

This section requires the Board to meet at least six times annually and defines the Board's functions. These include advising the President and Congress on water resources policy, recommending changes in laws or procedures, issuing rules and procedures to assure coordination among the various Federal water resource agencies, making recommendations to the agencies, and preparing periodic national water assessments.

Under the Sunshine Act, the Board is declared an "agency" making clear that meetings of the Board be open to the public.

Section 902 requires the Board to establish, by rule, principles, standards, and procedures for Federal agencies involved in water resource management and development. These will replace the nonbinding principles and guidelines currently in effect. A Board, with rulemaking authority, can more effectively assure consistency among the agencies in planning and management.

One of the primary components of the rules will be standards for benefit-cost analysis. The conclusions of a benefit-cost analysis depend largely on the methods used, the types of benefits and costs included, and the objectives used to rank alternative plans or projects. The Board is directed to include two equal objectives in its standards: environmental quality and national economic development. Each analysis will be required to include a tabulation of the benefits and costs in two accounts corresponding to the two objectives.

The new rules will place greater emphasis on the environmental impacts of water resource management than do the current principles and guidelines. Currently, the only official objective is national economic development. Environmental quality plays the role of a constraint rather than an objective. That is, net economic benefits are maximized so long as environmental statutes are not violated.

Water conservation, although not an explicit objective, should also be considered in planning and project design. This section directs the Board to define water conservation as including reduction in demand and water loss, improved efficiency, and improved land management practices. The Federal Government and the non-Federal sponsors will collaborate on the planning and implementation

of conservation measures. This does not expand the Federal role in land use planning, traditionally a State and local concern.

The Board is required to establish separate principles, standards, and procedures applicable to the small projects of the Department of Agriculture's Soil Conservation Service.

The principles, standards, and procedures previously promulgated by the Water Resource Council are to be restored and remain in effect until the Board establishes the new rules.

Section 903 authorizes $5,000,000 per year to be appropriated to the Board in fiscal years 1985 through 1989.

Section 904 establishes a State Advisory Committee with five members. The Chairman of the Committee will be appointed by the Board from a list of recommended appointees provided by the National Governors Association. The Board and the Chairman of the Committee will appoint the remaining four members, also based on the recommendations of the NGA. The Committee is required to meet at least six times per year to review the actions and proposals of the Board and make recommendations. The sum of $100,000 per year is authorized for fiscal years 1985 through 1989. The funds will be appropriated to the Board which will reimburse members of the Committee.

The creation of a State Committee to assist the Board is intended as a mechanism for greater State participation in the planning process. The Committee could influence all facets of the Board's activities, including the planning rules and the national water assessments. This will not only assure the consideration of State viewpoints, but will make the Board's products more useful to State and local planners trying to implement recommendations. The Committee will represent all regions of the country and a spectrum of viewpoints on water resource policy.

Section 905 authorizes the Board and the Committee to hire staff and contract for studies.

Section 906 declares that this title does not alter existing law on the ownership and control of water.

TITLE X

Section 1001 creates a National Commission on Harbor Maintenance composed of the Secretaries of the Army, Treasury, and Transportation, the Special Trade Representative, and a Chairman appointed by the President. The Commission is to report to the appropriate Congressional committees in two years with its recommendations on the level of recovery of harbor maintenance costs that would be desirable, together with a recommended method of collecting those costs from the ports or shipping companies.

The issue of how to collect harbor user fees on maintenance costs would appear relatively simple. The Committee reported legislation during the 97th Congress (S. 1692) that utilized a port-specific collection system, with a cap. That legislation was strongly opposed by some port and shipping interests. In this Congress, proposals have been made for uniform national fees and taxes on maintenance; both of these approaches have come under heavy opposition from divergent shipping and port interest. The Commission will serve to help the Congress and the nation resolve this vexing issue.

To assist the Commission, an 11-member Shipping Advisory Board is established, with representation from the various ports—both large and small and representing all coasts and the Great Lakes—as well as shippers and carriers.

Current Federal harbor maintenance policies will continue until Congress acts to accept, reject, or modify the recommendations of the Commission. An annual cap on Federal maintenance obligations is set at $350,000,000 until Congress acts on the commission's recommendations. The maintenance spending in fiscal year 1983 was $335,000,000.

An exception is made for spending solely for Coast Guard or military purposes, or for emergency purposes. Thus, should another disaster such as the eruption of Mount St. Helens occur, emergency dredging work in the Columbia River could proceed outside the cap.

Section 1002 requires that non-Federal interests pay 50 percent of surveying, planning, designing, and engineering costs prior to the construction of a general cargo harbor (which is defined later in this title). However, in order to expedite feasibility studies, non-Federal interests may, at their own expense, undertake feasibility studies, then submit them to the Corps of Engineers. The Corps would evaluate the studies and submit them to Congress with recommendations. Studies under this Title must be developed consistent with the requirements of Title IX.

This provision is designed to reduce the delay associated with the current authorization and appropriation process in completing studies of harbor projects. In some instances these studies have taken a decade to complete. This provision allows those harbors that wish to fund studies to do so, then obtain earlier consideration by Congress.

The provisions of this title also apply to projects that widen channels as well as deepen them. In many instances widening projects are needed to improve harbor safety—an objective as important as any consideration of improved capacity. Studies under this section and as well as construction under sections 1003 or 1004 can be justified to improve harbor safety.

Section 1003 concerns general cargo harbors, which will for many years into the furture be the primary source of commerce between the United States and other nations. Similarly, these harbors provide a major conduit for the flow of commodities between regions of the United States. This function is essential to national commerce. Consequently, the retention of significant Federal participation is justified.

Under this section, general cargo ports are required to provide a non-Federal share of 30 per cent, including land, easements, and rights of way. This share is to be provided during the period of harbor construction. This section applies to projects not under construction. For the purposes of this section, a project has commenced construction if a non-Federal interest has entered into a written contract as of December 31, 1983, to provide local cooperation, including, where applicable, an agreement under section 221 of the Flood Control Act of 1970 (as amended). It is the initial execution of these agreements that meets the test of commencing

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construction. Subsequent revisions, modifications, and renegotiations to these agreements do not alter the effective date.

The 50-foot harbor project at Baltimore, authorized in 1970, is included in this title as a general cargo harbor, meaning that non-Federal sponsors must pay 30 percent of the costs of the project. The Baltimore harbor project is not under construction for the purposes of this Act.

Under existing law, non-Federal sponsors are responsible for providing diked disposal areas, where necessary. That authority is not changed by this bill. Non-Federal sponsors continue to be responsible for that work, where necessary, in addition to the 30 percent requirements in this section.

Section 1004 establishes policy for the construction and maintenance of deep-draft harbors. The fiscal constraints placed on the Federal Budget make the early completion of port improvements, such as those contemplated at Norfolk and New Orleans, appear impractical. Section 1004 creates a mechanism to construct the deeper harbors needed by shippers of primarily bulk cargoes. Ships that are in excess of 100,000 deadweight tons are more efficient for bulk cargoes.

Non-Federal interests will be responsible for the construction of deep-draft harbors. The Corps shall transfer any feasibility study for a deep-draft harbor to non-Federal interests to enable those interests to act upon the studies as they choose.

Non-Federal interests at their expense may contract with the Corps for all studies and engineering necessary for any deep-draft harbor construction and assistance in obtaining permits. The Corps can complete deep-draft harbor construction where construction was begun prior to enactment of this Act. However, for projects where construction has begun prior to this Act, the non-Federal interest must repay the cost (plus interest) of all work done after September 30, 1984, within 50 years of the date of enactment.

To assist non-Federal interests constructing projects deeper than 45 feet, the Federal Government shall provide up to 70 percent guarantees on the loans or bonds required for development.

A non-Federal interest may apply to the Secretary for a guarantee for up to 70 percent of the outstanding principal of the loan or bonds financing such project. Such guarantee shall cover both principal and interest due at the time for any default, subject to the 70 percent limitation.

The total amount of guarantees outstanding at one time may not exceed $1.5 billion, and guarantees entered into are subject to amounts provided in appropriation Acts. Further, the Secretary may not issue a guarantee for any bond or loan on which the interest is exempt from Federal taxation. Guarantees are available only for projects that are defined as deep-draft harbors under this bill.

Operation and maintenance of all harbors will be undertaken by the Secretary at full Federal expense to a depth of 45 feet. Fifty percent of the incremental maintenance costs (deeper than 45 feet) associated with deep-draft harbors must be paid by the non-Federal interest, and 50 percent by the Federal Government. For a project to be eligible for the 50 percent Federal share, the project must have been constructed by the local interest in accordance with appropriate engineering and design standards.

Since Federal funds will no longer be available for construction dredging beyond the 45-foot threshold, the marketplace will decide which harbors will generate sufficient deep-draft traffic to justify such a project.

The cost of a 50-foot channel, accommodating two-way traffic and anchorages at Norfolk, Va., is estimated at $133,000,000, at today's costs. When a local sponsor undertakes this work, it would be eligible for the following assistance from the Federal Government:

70 percent loan guarantees on non-Federal work below 45 feet;

100 percent of the cost of maintenance to 45 feet, and half of the maintenance costs below 45 feet.

The non-Federal interest could also have received 70 percent of the cost of construction to 45 feet if that construction had been authorized by Congress and funding appropriated for its construction. However, to receive this assistance, the harbor would have to await the congressional authorization and appropriation process.

Any relocation of existing pipelines, cables, or related facilities necessary because of a deep-draft harbor project shall be carried out with half the costs being borne by the non-Federal interest. The local sponsor will not be responsible for any costs associated with upgrading or improvements to such facilities.

Section 1005 establishes policy on the construction of defense-related harbors.

This section provides a limited authority to the Corps of Engineers or other Federal agencies, such as they Navy or Coast Guard, to construct harbor improvement projects, and continue to maintain those projects, if they are needed to facilitate the movement of Navy and other government-owned defense ships. This is intended to include ships of the Coast Guard, as well as ships carrying military personnel and materiel. This section will be used infrequently. No further congressional authorization would be required, although such expenditures would be subject to appropriations acts.

The Nation has 24 naval ports with significant naval traffic. The Committee recongizes that instances may occur in the future where there is a need to deepen an existing harbor or to build a new harbor for the purposes of moving defense ships and personnel. When this occurs, this section will be operative.

This section will most likely involve the construction of anchorages, turning basins, or wider channels. Current channel depths appear to be sufficient for today's defense fleet, both existing and projected. It would be unfair to require the non-Federal interests and the commercial shipping public to finance projects that are needed for Naval or Coast Guard use.

This section permits the Federal Government to expand, to a limited degree, a project undertaken for defense-related purposes to include associated improvements for non-defense—related purposes. These additional improvements would be subject to a proportionate repayment during the period of constuction. For instance, the Federal Government is permitted to increase the size or distance of a project. This is not intended to permit the Federal Government to dredge a turning basin for the Navy, then use that modest improvement to piggy-back a major channel improvement

that significantly expands the commercial shipping use in the same harbor.

This section does not authorize the Federal Government to deepen a harbor project simply because that harbor may transit movements of commodities that have a strategic importance, such as oil.

It authorizes the Federal Government to pay to non-Federal interests a proportionate share of the cost of a non-Federal improvement project, if that project provides benefits directly related to Naval or other defense shipping. Such an arrangement would have to be made prior to the initiation of construction of the project by the non-Federal interest.

The no-Federal share of work in general cargo harbors shall be reduced on a proportional basis for national defense related costs if the benefits are directly related to the national defense. For example, the project currently being studied for Portsmouth, N.H., would provide some direct defense-related benefits as a result of fuel shipped to an Air Force base.

Section 1006 authorizes the non-Federal interest to collect fees to cover the cost of its share of a project's construction costs, as well as incremental maintenance costs.

It authorizes and appropriate non-Federal interest to recover its obligations for construction work, including associated administrative expenses, by the imposition and collection of fees for the use of such projects by vessels in commercial waterway transportation. The precise nature of such fees, the fee structure and schedule, and the frequency such fees should be collected is left to the discretion of the appropriate non-Federal interest, pursuant to the terms of this section and State law. There is no requirement that the fees be approved by any Federal agency.

The provision recognizes that a link should exist between the imposition of the local user fee on vessels and cargoes and the benefits to those specific vessels and cargoess resulting from the maintenance or improvement project.

This has been one of the more difficult issues confronting the Committee: What guidance, if any, should be provided in the way a use fee is allocated among the traffic that uses a port. Assume construction of a 50-foot channel. Some argue that the cost should be imposed only on vessels drawing more than 45 feet, since they are the only direct beneficiaries of the additional five feet in depth. Others argue the costs should be allocated among all ships using the port, since general service is improved. Others say there should be no congressional guidance, granting full flexibility to the port.

Recognizing the fact that most of the benefits of a deeper channel will accrue to ships with the drafts using that deeper channel, at least 80 percent of the cost must be recovered from those direct beneficiaries, with the remaining 20 percent to be allocated among other vessels using the port.

There may be a need to phase in such charges. Thus, the 80 percent rule need not be applied strictly during the initial few years once a project is completed.

The fees authorized by this section shall be used by the non-Federal interest only to pay its share of the costs of maintenance and

improvements of deep-draft channels and harbors of the United States, as provided for in this Act.

Two exemptions from the fees authorized by this section are provided. First, fees shall not be imposed on vessels owned and operated by the United States or any other nation or any political subdivision thereof, when the vessel is not engaged in commercial waterway transportation. Second, fees shall not be imposed on vessels owned and operated by a State or political subdivision thereof in transporting persons or property in the business of the State or political subdivision, and not engaged in commercial waterway transportation. If cargo on such vesels were not considered property in the business of the state or political subdivision thereof, then such cargo would be subject to the fees authorized by this section.

It must be stressed that nothing in this section requires a use fee. The whole cost, or partial costs, may be carried as a general non-Federal expense of government, if local interests so decide.

Section 1007 provides for a fast-track permitting process for non-Federal construction.

This section established a procedure to consolidate into a two-year period the processing of all permits that may be required prior to construction of any harbor improvement. The purpose of this section is to give non-Federal interests a date certain in which to expect to obtain all Federal permits necessary for harbor improvements. To the extent possible, state and local authorities will be included in the joint review process. The section defines the responsibilities of both the Federal agencies and the permit applicant, designates the Corps of Engineers as the lead agency, and provides for progress reports to Congress in an effort to avoid delays in meeting the schedule of compliance.

The Committee is aware that there have been problems in processing permits required for new harbor improvements. This bill requires a stronger Federal commitment to expedited processing of such permits than the executive agencies have demonstrated to date. However, the bill does not exempt harbor development from specific environmental laws. Rather, the bill consolidates the review process, facilitating the joint processing of as many permits as possible, and provides a greater planning certainty to the local authority. The provision consists of five basic components:

First, it requires the Secretary of the Army to initiate procedures to establish a schedule of compliance for the necessary permits. The Secretary will commence such activities upon receipt of notice from a non-Federal interest that it intends to construct new harbor and related facilities.

Second, within 15 days of receipt of this notification, the Secretary must publish a notice in the Federal Register and notify all affected state and local agencies of the intent to initiate the permit process, requesting their cooperation in the consolidated review of the permit application. The non-Federal agencies are given 30 days to notify the Secretary of their willingness to participate in the consolidated permitting process. Within 90 days, the Secretary must enter into an agreement with affected Federal agencies, and any state and local agencies will to be parties to the agreement, for the purpose of establishing a schedule to permit all necessary permits.

Third, it more clearly defines the consolidated review process. To the extent possible, the agreement must consolidate hearing and comment periods, and procedures for data collection and report preparation. The agreement must also define the responsibilities of the non-Federal interest with respect to data development and information necessary to process each permit.

The agreement will include a date to inform the applicant and the Congress whether there is a reasonable likelihood that the permits will be granted. If the likelihood does not exist that all permits will be granted, the schedule can be extended for 120 days to revise the original application to meet the objections of the Federal agencies. This will be the only point at which the schedule may be modified.

Fourth, six months prior to the final day of the schedule, the Secretary shall submit a progress report to Congress summarizing all work completed to date and detailing the schedule for completing all remaining work. Such notice is intended to signal any potential problems in meeting the compliance schedule and provide adequate time to resolve these problems to assure that the schedule is met.

Fifth, the Secretary of the Army must notify the non-Federal interest no later than the final day of the compliance schedule as to whether the permit or permits are issued.

Additionally, this section requires the Secretary to submit a report to Congress by March 1, 1985, describing the time required to issue Federal permits related to harbor improvements, and make recommendations for reducing the time necessary to issue such permits.

Section 1008 provides several definitions for this title:

"Harbors" are basically defined as the channels and harbors of the United States with a depth of 14 feet or greater. The term excludes from the definition local access and berthing channels, which are not eligible for Federal support.

"General cargo harbors" are those authorized depths of 45 feet or less, or authorized for construction to a greater depth if authorized prior to January 1, 1972. This latter phrase recognizes that a 50-foot project at Baltimore was authorized in the Rivers and Harbors Act of 1970. Considerable sums have been expended by the State, based on this authorization prior to this bill. Treating this improvement as a general cargo harbor is equitable, based on its prior authorization. The diked disposal expenses at Baltimore, of course, do not count toward the non-Federal 30 per cent.

Third, the term "deep-draft harbor" is an improvement to a depth of more than 45 feet. The split at 45 feet is defined as below mean low water on the Atlantic and Gulf Coasts, below mean lower low water on the Pacific Coast, and below what is described as the Great Lakes datum on the Great Lakes.

The term "non-Federal interest" is defined in accordance with section 221 of P.L. 91-611.

Section 1009 includes authorization of all those port improvement projects which have completed the Corps planning process and have been approved by the Chief of Engineers. They are as follows:

KODIAK HARBOR, ALASKA

Location.—City of Kodiak on the northeast shore of Kodiak Island in southcentral Alaska.

Purpose.—Deep draft navigation.

Problem.—Lack of protected mooring space causes inefficiencies and high operating costs for commercial fishing vessels in the Kodiak area.

Recommended plan.—Construction of a 1,900-foot long rubble-mound break-water and a 20-foot deep access channel for protection of, and entrance to, a 45-acre moorage area and a 45-acre protected water area.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1978.

Total project cost.—$13,560,000.

Federal first cost.—$13,400,000.

Benefit/cost ratio.—2 to 1 at a discount rate of 7⅞ percent.

OAKLAND OUTER HARBOR, CALIFORNIA

Location.—Oakland Harbor on the eastern shore of central San Francisco Bay.

Purpose.—Deep draft navigation.

Problem.—Inadequate existing channels results in unsafe and inefficient vessel operation and subsequent higher transportation costs.

Recommended plan.—Deepening to a maximum of 42 feet and widening of existing channels and relocation and widening of the turning basin.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1981.

Total project cost.—$41,200,000.

Federal first cost.—$36,040,000.

Benefit/cost ratio.—2.6 to 1 at a discount rate of 7⅞ percent.

RICHMOND HARBOR, CALIFORNIA

Location.—Adjacent to the city of Richmond on the eastern side of the San Francisco Bay.

Purpose.—Deep draft navigation.

Problem.—Existing channel depths (35 feet) and widths are inadequate and result in inefficient and hazardous navigation conditions.

Recommended plan.—Deepening of all channels and basins to 41 feet, widening of channels, enlarging the existing turning basin and construction of a new turning basin.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in May, 1982.

Total project cost.—$55,901,000.

Federal first cost.—$48,400,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

SACRAMENTO RIVER, DEEPWATER SHIP CHANNEL, CALIFORNIA

Location.—Sacramento River in Central California from Avon to the Port of Sacramento.

Purpose.—Deep draft navigation and recreation.

Problem.—Existing 30 foot channel depth and channel widths are inadequate to provide efficient and safe passage of ships.

Recommended plan.—Deepening of channel to 35 feet and widening of channel, installation of salinity monitoring stations, authority to construct necessary features for salinity control if necessary, establishment of about 200 acres of wildlife mitigation habitat, and development of 30 acres of recreation facilities.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project costs.—$95,200,000.

Federal first cost.—$77,000,000.

Benefit/cost ratio.—2.3 to 1 at a discount rate of 7⅞ percent.

NEW HAVEN HARBOR, CONNECTICUT

Location.—North-central shore of Long Island Sound abutting the Cities of New Haven and West Haven, Connecticut.

Purpose.—Deep draft navigation.

Problem.—Existing 35 foot channel and inadequate channel widths result in inefficient and unsafe vessel operation.

Recommended plan.—Deepening of existing channel to 40 feet, widening and realignment of channel, construction of new turning basin, and disposal of dredged material in Morris Cove and at the Long Island Sound Central Disposal Site.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1981.

Total project cost.—$24,000,000.

Federal first cost.—$23,000,000.

Benefit/cost ratio.—2.3 to 1 at a discount rate of 7⅞ percent.

JACKSONVILLE HARBOR, MILL COVE, FLORIDA

Location.—St. Johns River in Jacksonville, Florida.

Purpose.—Navigation and recreation.

Problem.—Shallowing conditions in Mill Cove have been caused by the Corps of Engineers Jacksonville Harbor navigation project. The shallow depths restrict small boat traffic and adversely affect property values.

Recommended plan.—Enlargement of existing opening to Mill Cove to increase flow, construction of diversion structures, and dredging of a 6 foot deep navigation channel.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$5,700,000.

Federal first cost.—$5,700,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

MANATEE HARBOR, FLORIDA

Location.—Southern shoreline of Tampa Bay, Florida near the entrance to the Gulf of Mexico.

Purpose.—Deep draft navigation.

Problem.—Locally constructed 40-foot channel is experiencing continued shoaling and existing widths are inadequate for present

traffic. Both of these factors contribute to inefficient and unsafe navigation.

Recommended plan.—Modification of authorized Tampa Harbor Project to provide for 400-feet wide by 40-feet deep Federal channel at Manatee Harbor; construction of enlarged turning basin and diked disposal areas, and creation of 10 acres of shallow bay bottom for mitigation purposes.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1979.

Total project cost.—$13,720,000.

Federal first cost.—$10,600,000.

Benefit/cost ratio.—7.7 to 1 at a discount rate of 7⅞ percent.

TAMPA HARBOR, EAST BAY CHANNEL, FLORIDA

Location.—Northeast section of Tampa Harbor between Hillsborough and McKay Bays.

Purpose.—Deep draft navigation.

Problem.—Shoaling within the East Bay channel results in inefficient transportation of cargo.

Recommended plan.—Maintenance by Federal Government of a 300-foot wide by 5,500 foot deep by 34-foot deep navigation channel.

Environmental impact statement.—Environmental assessment contained in final report of May, 1977.

Total project cost.—Not applicable since only maintenance is assumed.

Federal first cost.—Not applicable since only maintenance is assumed.

Benefit/cost ratio.—3.6 to 1 at a discount rate of 7⅞ percent.

SAVANNAH HARBOR, WIDENING, GEORGIA

Location.—Chatham County Georgia on the South Atlantic Coast 75 miles south of Charleston Harbor, South Carolina.

Purpose.—Deep draft navigation.

Problem.—Narrow inner harbor channel results in reduced ship speeds and inefficient navigation.

Recommended plan.—Widening of the channel and the existing King's Island Turning Basin.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$17,792,000.

Federal first cost.—$11,700,000.

Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

GRAND HAVEN HARBOR, MICHIGAN

Location.—East shore of Lake Michigan at Grand Haven, Michigan.

Purpose.—Deep draft navigation.

Problem.—Inadequate channel and turning basin result in unsafe and inefficient vessel operation.

Recommended plan.—Deepening of harbor entrance channel and harbor river channel to a maximum of 29 feet and construction of a new and larger turning basin.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1981.

Total project cost.—$16,500,000.

Federal first cost.—$12,900,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

MONROE HARBOR, MICHIGAN

Location.—Within the city of Monroe, Michigan.

Purpose.—Deep draft navigation.

Problem.—Existing channel is inadequate to handle modern ships safely and efficiently.

Recommended plan.—Deepening of the river basin portion of the channel to a maximum of 27 feet, deepening to a maximum of 28 feet and widening of the Lake Erie portion of the channel, construction of a new turning basin and a confined disposal facility, and the creation of a marsh for mitigation purposes.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$145,280,000.

Federal first cost.—$68,700,000.

Benefit/cost ratio.—3.3 to 1 at a discount rate of 7⅞ percent.

GULFPORT HARBOR, MISSISSIPPI

Location.—Mississippi Sound, 78 miles east of New Orleans.

Purpose.—Deep draft navigation.

Problem.—Inadequate channel depths and widths result in safety and efficiency problems.

Recommended plan.—Deepening to a maximum of 38 feet and widening of existing channel.

Environmental impact statement.—Supplemental information to revised draft statement was filed with the Environmental Protection Agency in December, 1978.

Total project cost.—$73,849,000.

Federal first cost.—$73,849,000.

Benefit/cost ratio.—1.08 to 1 at a discount rate of 7⅞ percent.

Comments.—Section 212 of this act makes authorization for construction conditional on the completion of the favorable report of the Chief of Engineers.

WILMINGTON HARBOR, NORTHEAST CAPE FEAR RIVER, NORTH CAROLINA

Location.—City of Wilmington in southeastern North Carolina.

Purpose.—Deep draft navigation.

Problem.—Need for improved and extended channels to meet expanding port development and need to protect and maintain surrounding productive and rare land and estuarine ecological systems.

Recommended plan.—Deepening to a maximum depth of 35 feet and widening of ship channel and turning basin, and purchase of about 2,800 acres of mitigation lands.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1980.

Total project cost.—$9,056,000.

Federal first cost.—$7,740,000.
Benefit/cost ratio.—2.5 to 1 at a discount rate of 7⅞ percent.

PORTSMOUTH HARBOR AND PISCATAGUA RIVER, NEW HAMPSHIRE, AND MAINE

Location.—Mouth of Piscatagua River 45 miles Northeast of Boston.
Purpose.—Deep draft navigation.
Problem.—Inadequate channel widths in certain areas result in unsafe and inefficient navigation conditions.
Recommended plan.—Widening of the existing Federal project in appropriate locations.
Environmental impact statement.—Addendum to finding of No Significant Impact was submitted to the Environmental Protection Agency in 1983.
Total project cost.—$21,200,000.
Federal first cost.—$21,200,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.
Comments.—Section 212 of this act makes authorization for construction conditional on the completion of the favorable report of the Chief of Engineers.

GOWANUS CREEK, CHANNEL, NEW YORK

Location.—Gowanus Creek connects the New York Harbor entrance with the Interior of the county of Brooklyn, New York City.
Purpose.—Deep draft navigation.
Problem.—Inadequate channel depths result in navigation inefficiency.
Recommended plan.—Deepening of the channel to a maximum of 40 feet.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1982.
Total project cost.—$3,200,000.
Federal first cost.—$2,000,000.
Benefit/cost ratio.—3.8 to 1 at a discount rate of 7⅞ percent.

KILL VAN KULL AND NEWARK BAY CHANNELS, NEW YORK

Location.—New York Harbor at New York City.
Purpose.—Deep draft navigation.
Problem.—Inadequate channel depths and widths result in inefficient and unsafe passage for ships.
Recommended plan..—Deepening to a maximum of 45 feet and widening of existing Federal channels and construction of a new turning basin at Port Elizabeth.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1981.
Total project cost.—$229,000,000.
Federal first cost.—$178,000,000.
Benefit/cost ratio.—6.9 to 1 at a discount rate of 7⅞ percent.

SAN JUAN HARBOR, PUERTO RICO

Location.—North coast of Puerto Rico at the City of San Juan.

Purpose.—Deep draft navigation.

Problem.—Inadequate depths, widths, and wideness result in hazardous and inefficient use of the harbor.

Recommended plan.—Deepening to a maximum of 40 feet and widening of a number of harbor channels and features and mitigation for the loss of 22 acres of shallow-bottom habitat.

Environmental impact statement.—Final statement filed with the Council on Environmental Quality in August, 1976.

Total project cost.—$74,833,000.

Federal first cost.—$72,800,000.

Benefit/cost ratio.—5.8 to 1 at a discount rate of 7⅞ percent.

CHARLESTON HARBOR, SOUTH CAROLINA

Location.—Midway along the South Carolina coast at Charleston, South Carolina.

Purpose.—Deep draft navigation.

Problems.—Present channel is inadequate to safely and efficiently carry existing traffic.

Recommended plan.—Deepening to a maximum of 42 feet and some widening of present project features and mitigation for 10 acres of lost wetland.

Environmental impact statement.—Final supplement to final statement was filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$77,757,000.

Federal first cost.—$76,100,000.

Benefit/cost ratio.—1.92 to 1 at a discount rate of 7⅞ percent.

BRAZOS ISLAND HARBOR, TEXAS

Location.—Southernmost tip of Texas 5 miles form the Mexican border.

Purpose.—Deep draft navigation and recreation.

Problems.—Inadequate channel widths and depths cause unsafe and inefficient vessel operation. There is also the need for recreational facilities.

Recommended plan.—Deepening to a maximum of 42 feet and widening of existing channels, enlargement of turning basin, and construction of a park.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$28,319,000.

Federal first cost.—$26,700,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

CROWN BAY CHANNEL—SAINT THOMAS HARBOR VIRGIN ISLANDS

Location.—South coast of the island of St. Thomas in the Virgin Islands.

Purpose.—Deep draft navigation.

Problems.—Inadequate channel results in unsafe and inefficient transportation conditions. Crown Bay is presently a natural embayment.

Recommended plan.—Construction and maintenance of a new 38-foot deep channel and 36-foot deep turning basin.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in August 1981.

Total project cost.—$7,044,000.

Federal first cost.—$3,500,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

BLAIR AND SITCUM WATERWAYS, TACOMA HARBOR, WASHINGTON

Location.—Tacoma Harbor in Puget Sound in the northwest corner of Washington.

Purpose.—Deep draft navigation.

Problems.—Blair Waterway is too shallow and narrow at the East 11th Street Bridge to permit safe and efficient ship passage. Sitcum Waterway is presently maintained by local interests.

Recommended plan.—Deepening of the Blair Waterway to a maximum of 45 feet and replacement of the East 11th Street Bridge, and assumption of maintaining by the Federal Government of the locally constructed Sitcum Waterway.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November 1978.

Total project cost.—$31,900,000.

Federal first cost.—$30,000,000.

Benefit/cost ratio.—2.5 to 1 at a discount rate of 7⅞ percent.

GRAYS HARBOR, WASHINGTON

Location.—Gray Harbor County in southwestern Washington.

Purpose.—Deep draft navigation.

Problem.—Present channel is inadequate to safely and efficiently handle modern ships.

Recommended plan.—Deepening to a maximum of 46 feet and widening of the Gray's Harbor ship channel.

Environmental impact statement.—Draft statement was filed with the Environmental Protection Agency in June, 1982.

Total project cost.—$86,044,000.

Federal first cost.—$77,800,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

Comments.—Authorization for construction is conditioned on completion of favorable report of the Chief of Engineers (Section 212 of this Act).

Further, this section provides that it is the sense of the Congress that several deep-draft harbor projects, reviewed favorably by the Chief of Engineers, should be constructed expeditiously by non-Federal interests under the provisions of section 1004. These are:

Norfolk Harbor and Channels, Virginia;

Mobile Harbor, Alabama; and

Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana.

While these projects have been reviewed favorably by the Corps, it must be emphasized that other potential deep-draft harbors are under consideration by the Corps and by non-Federal interests. These projects have an equal right to the same degree of Federal

support under the terms of section 1004. These potential deep-draft harbors include:

New York, New York;
Los Angeles, California;
Columbia River, Oregon;
Brazos Island Harbor, Texas;
Corpus Christi, Texas;
Freeport Harbor, Texas;
Galveston, Texas;
Houston, Texas; and
Texas City, Texas.

Hearings

In preparation for omnibus water resources legislation, the Subcommittee on Water Resources held hearings during both the 97th and 98th Congresses. During the 97th Congress, 13 hearings were held: four on water policy issues, and nine on port development and inland waterway issues.

During the 98th Congress, the Subcommittee on Water Resources held eight hearings in Washington, D.C.: April 22, 1983—specific water projects and water policy; May 17, 1983—specific water project proposals; May 18, 1983—specific water project proposals; June 15, 1983—water policy and specific water project proposals; June 21, 1983—deep-draft channel and harbor issues; June 27, 1983—Dam safety and deep-draft channel and harbor issues; June 28, 1983—Urban water supply and flood control issues; and July 18, 1983—inland waterway policies and projects.

In addition, the Subcommittee held three field hearings: New Orleans, La., August 12, 1983—deep-draft channel and harbor issues and specific harbor and flood control projects; San Francisco, Ca., August 15, 1983—deep-draft channel and harbor issues and specific harbor projects; and Portsmouth, N.H., September 24, 1983—deep-draft channel and harbor issues and specific harbor projects.

During both Congresses, witnesses included a spectrum of representatives of the Administration, State and local governments, and numerous industries and public interest groups.

Rollcall Votes

Section 7(b) of rule XXVI of the Standing Rules of the Senate and the rules of the Committee on Environment and Public Works require that any rollcall votes taken during consideration of legislation be noted in the report. The following rollcall votes were taken during the Committee's consideration of S. 1739:

On a package of three amendments by Senators Abdnor, Burdick, and Baucus to (l) strike the original text of Section 310 and replace it with the existing language, (2) strike the original text of Section 601(a) and replace it with the existing language, and (3) insert the priviso on the existing section 701(b)(10); the Committee voted 15 to 0. Those voting in the affirmative were Abdnor, Baker, Baucus, Bentsen, Burdick, Chafee, Domenici, Durenberger, Hart, Humphrey, Mitchell, Moynihan, Randolph, Simpson, and Stafford.

On an amendment by Senator Chafee to insert Section 223, requiring a two-stage Corps of Engineer planning process and a 50

per cent local cost share on feasibility studies, the Committee voted 10 to 0 with Senators Abdnor, Bentsen, Burdick, Chafee, Domenici, Durenberger, Moynihan, Randolph, Simpson, and Stafford voting in the affirmative.

The Committee failed to adopt an amendment by Senator Simpson to reduce the inland wateway obligation cap in Section 501 by $35,000,000 per year. The amendment failed on a vote of 8 to 8, with Senators Chafee, Domenici, Hart, Humphrey, Mitchell, Moynihan, Simpson, and Stafford voting in the affirmative, and with Senators Abdnor, Baker, Baucus, Bentsen, Burdick, Durenberger, Randolph, and Symms voting in the negative.

On the motion to report favorable S. 1739, as amended, to the Senate, the Committee voted 14 to 2, with Senators Abdnor, Baker, Bentsen, Burdick, Chafee, Domenici, Durenberger, Hart, Humphrey, Mitchell, Moynihan, Randolph, Stafford, and Symms voting in the affirmative, and with Senators Baucus and Simpson voting in the negative.

Cost of Legislation

Section 403 of the Congressional Budget and Impoundment Control Act requires a statement of the cost of the reported bill, prepared by the Congressional Budget Office, be inlcuded in the report. That statement follows:

U.S. Congress,
Congressional Budget Office,
Washington, D.C., November 17, 1983.

Hon. Robert T. Stafford,
Chairman, Committee on Environment and Public Works, U.S. Senate, Dirksen Senate Office Building, Washington, D.C.

Dear Mr. Chairman, The Congressional Budget Office has not yet completed its review of S. 1739, the Water Resources Development Act of 1983, but has prepared a preliminary analysis of the bill's potential budget impact. As ordered reported by the Senate Committee on Environment and Public Works on November 8, 1983, S. 1739 authorizes water resource and related projects having an estimated cost of about $8.1 billion. (Because most of these authorizations are stated in October 1982 dollars, the ultimate cost of these projects, if funded, will be greater than the stated amounts.) The bill also authorizes a five-year, $3 billion loan program for water-supply systems, and a loan guarantee program for deepening deep-draft harbors. Outstanding guarantees are limited to $1.5 billion in any fiscal year. For fiscal years 1985 through 1989, the bill authorizes approximately $0.6 billion for water resource programs, including grants, research, and studies.

In addition, the bill authorizes the Secretary of the Army, through the Chief of Engineers, to impose, collect, and obligate use fees on commercial users of U.S. inland wateways and harbors. It also establishes annual obligation ceilings on various water resource programs. Finally, the bill establishes a cost-sharing program between the federal government and nonfederal project sponsors for water resource construction projects, other than navigational projects.

We will complete a more detailed analysis in the near future, and provide a formal cost estimate for S. 1739 as soon as possible.

Sincerely,

RUDOLPH G. PENNER.

EVALUATION OF REGULATORY IMPACT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee has evaluated the regulatory impact of S. 1739. Only sections 808 and 902 explicitly require that any new regulations be promulgated. Section 808 requires the Chief of Engineers to issue regulations necessary to carry out the intent of title VIII which creates a loan program for the repair, rehabilitation, or expansion of water supply systems. Regulations will be required on the selection of projects to receive loans, on the allocation of funds to the states, and on the terms under which loans are to be made and repaid.

Section 902 requires that the National Board of Water Policy, created in the preceding section, establish principles, standards, and procedures for Federal participation in the preparation of comprehensive regional or river basin plans and for the formulation and evaluation of Federal water and relatedd land resource management and development plans. Because the National Board on Water Policy is required to consult with appropriate Federal and non-Federal concern prior to issuing any new regulations, the Committee is unable to accurately assess the regulatory impact of section 902.

Other provisions, while not requiring regulations, could result in their issuance. These sections are as follows:

Section 201 requires that the Chief of Engineers include information in any study reports for a flood control project on the likelihood that any single landowner would receive 10 percent of more of the benefits of that project.

Section 208 requires the Chief of Engineers to institute a procedure to certify that locally constructed flood control works are compatible with potential Corps of Engineers flood control projects under study for the purposes of cost sharing and benefit-cost analysis.

Section 209 requires the Chief of Engineers to undertake a program of research and assistance to communities in river ice control. Regulations could be issued for the purpose of specifying the conditions for, and term of, Corps assistance to local communities.

Section 215 allows the Chief of Engineers to enter into contracts with local project sponsors who have formed a Federal Project Repayment District for the purpose of meeting its share of project costs.

Section 219 requires the administration of three grant programs to the six High Plains states for the purpose of research into water conservation, water supply augmentation, and for demonstration projects in agricultural water use efficiency. Regulations may be issued to delineate requirements for the distribution of funds and awarding of grants.

Section 220 authorizes the Chief of Engineers to make grants to the states for the establishment and operation of programs to pro-

mote water conservation and non-structural flood control alternatives. Regulations specifying the eligibility criteria for grants under this section may be issued.

Section 223 requires the Chief of Engineers to implement a two-stage planning process. Although this has already been done administratively within the Corps of Engineers, some new regulations may be required to implement this section.

Section 225 authorizes the Chief of Engineers to undertake a programs to plan, design, and construct streambank erosion control projects. Some regulations may need in order to delineate project eligibility and terms of cooperation with local interests.

Section 401 requires the Chief of Engineers to administer a program of grants to the States for the purpose of augmenting and establishing State dam safety programs and authorizes the Chief of Engineers to provide training for State and dam safety inspectors. Section 401 also establishes a Federal Dam Safety Review Board to review safety and design procedures used in the construction of Federal dams, to monitor state implementation of this act, and to perform a study of the need for Federal funds for the repair of non-Federal dams.

Section 503 establishes an Inland Waterway Users Board whose members are to be selected by the Chief of Engineers. The Board's whose members are to be selected by the Chief of Engineers. The Board's recommendations on spending levels on commercial navigation features of the inland waterway system are to be printed annually in the Federal Register.

Title VI establishes new percentages and procedures for local sponsor cost sharing in Federal water resources projects. New regulations will probably be required to describe conditions and terms of local project sponsor cost-share contributions.

Section 1001 establishes a National Commission on Harbor Maintenance to study and make recommendations to Congress on the financing of the maintenance of the Nation's harbors. This section also requires the Chairman of the National Commission to select the members of a shipping advisory board to assist the Commission in its work.

Sections 1002, 1003, 1004, and 1005 establish new procedures and a new cost sharing policy for the study, and construction of general cargo and deep draft harbors. New regulations may be required to delineate procedures and requirements of these sections.

Section 1007 requires the Chief of Engineers to establish a new procedure to expedite the processing of all Federal permits required for harbor construction and improvement. Although some new regulations would probably be required by enactment of this section, its overall effect would be to lessen the effects of regulation by coordinating and streamlining already existing procedures.

A major purpose of S. 1739 is to streamline and speed up Federal action with respect to water resources project planning and construction. Therefore, even though new regulations will be required by enactment of S. 1739, the net increase in any regulatory burden will be minimal.

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ADDITIONAL VIEWS OF SENATOR STAFFORD

I am pleased that the Committee on Environment and Public Works has moved effectively and decisively on report S. 1739 to the Senate.

This is important legislation, legislation to meet a real national challenge.

We must recognize that the time for change in how we develop water resources projects has arrived. If we fail to develop legislation that will be acceptable to the Administration, we face the prospect of losing the hard work undertaken by our Committee.

That would be most regrettable. It would prove regrettable because of the time and effort that has gone into developing this legislation. More importantly, we will have squandered an opportunity to bring reasoned progress to our nation in this important area of water resources development.

As one additional step toward balanced legislation, I intend to work to develop a floor amendment that would deal with payback arrangements under the Water Supply Act.

Too often, water supply benefits appear to be included in a project on the basis of hope, rather than realistic expectation. What happens is that the water is stored at taxpayer expense, then never used or paid for by municipal or industrial customers.

I believe we need to tighten up on this law, to provide the taxpayers with a greater assurance that their money will be invested wisely.

ROBERT T. STAFFORD.

ADDITIONAL MINORITY VIEWS OF SENATOR SIMPSON

S. 1739, as passed by the Environment and Public Works Committee deserves general support. It represents an effort—after several long years—to once again begin the authorizations of some needed Corps of Engineers' projects. The bill represents the correct procedure which should now be followed: first, the authorization of projects by the appropriate congressional committee, and then the actual appropriation of Federal monies for the project. The bill should be applauded for that effort.

However, title V of the bill should be amended in two areas—the composition of the Inland Waterway Users Board and the failure to provide any provision for the Federal Government to recapture expenditures by an increase in user fees.

The thrust of title V is to set a "cap" on annual Federal expenditures for the construction, rehabilitation, renovation, operation and maintenance of the inland waterways and harbors. Currently the legislation sets this cap at $646 million annually.

The legislation also creates the Inland Waterway Users Board to ostensibly develop and make recommendations for Federal spending levels for the upkeep and construction of the waterways. Should the Board recommend more than the legislatively established cap of $646 million, the Board would then be empowered to recommend to the Secretary of the Army the imposition of user fees to pay for all additional costs over and above the cap.

The makeup of the Users Board is a body of "twenty-one members to represent various regions of the United States and a spectrum of users and shippers utilizing the various inland waterways and harbors of the United States for commercial purposes, selected by the Secretary from among persons recommended by groups and organizations representing such users and shippers, . . ." Noticeably lacking from this Board are those who represent environmental concerns and the public who would represent the budgetary concerns of the United States Treasury and all citizens.

This group of users and shippers would certainly have the potential for being very generous and self-serving to themselves—and understandably so. In order to assist their industry, it would only be natural that this group would recommend more construction and a continual run of repairs of existing waterways—with an extreme reluctance to cancel or discourage any projects—regardless of how little cost benefit or worth the projects may have. Members of the Board would also be extremely cautious about recommending against construction or repair of any project knowing full well that they too will have "pet" projects they will have to protect.

It is foreseeable that the existing cap will soon be perceived as being "too low"—and rather than increase user fees any significant amount the Board will only lobby Congress for a higher cap. Knowing the rugged political clout of the states that have waterway proj-

ects within their borders, such an attempt will likely succeed, thus defeating one of the very major purposes of the bill.

This bill should not be enacted into law without first providing that appropriate budgetary and taxpayer concerns are fully represented on the Board as well as establishing clear language providing for all environmental concerns to be represented on that Board as well.

The second weakness of title V is even more devastating to the Federal Treasury. As the bill stands, as long as the spending cap is not exceeded, the Federal Government does not "recapture" any of its expenditures.

The Federal Government has long passed the time when many projects continually are to be built—at taxpayers expense—without any cost sharing by the users or "non-Federal interests". This new attitude is certainly represented in this bill since other Corps of Engineer projects in this bill will require cost sharing ranging from 35 percent to 100 percent from non-Federal sources. Yet there is no such provision dealing with the inland waterways. That is not right.

The Administration had previously recommended recapture of Federal funds for use on inland waterways at a rate of 100 percent, although this figure was then revised downward to 70 percent. The present bill provides absolutely nothing toward recapture as long as the cap is not exceeded.

Many argue that the cap is already far too low to meet the actual construction and maintenance needs of the inland waterway system. However, since the serious deliberations began on the measure, the cap has already been raised from $500 million to $621 million, and now to the current level of $646 million—and all in the matter of just a few weeks. In addition, the construction on three of the major waterway projects (the Tenn-Tom (I hope we may yet let it "rest in peace"!), Red River, and Lock and Dam number 26 first lock) will be completed in the next few fiscal years. This would "free up" over $250 million annually for other projects.

This legislation should be amended to reduce the Federal spending cap by a clear and definite amount each fiscal year. This would then establish a gradual phase-in of increased user fees over a period of several years—providing the Corps of Engineers and the Users Board wished to maintain current spending levels.

Such an amendment would enable the Federal Government to recapture some of its expenditures while also encouraging the Users Board and the Corps to work closely together to determine which projects would indeed be the most beneficial to the users—and especially since the users will likely be contributing to the cost of the projects.

For example, if the spending cap was reduced by $35 million annually until the fiscal year ending September 30, 1999, the Federal Government would be recovering approximately 65 percent of its costs by the turn of the century. If spending remained at the cap level, the users would be kicking in about 5 percent of the cost per year. During that period of time the Federal Government will have coughed in—with no return—over $5.5 billion for the waterways. At the end of the phase-down, the government would still be obli-

gated to provide over $225 million annually—and still with no return.

Such an amendment would make the bill much more acceptable to those of us who are concerned about the continuing, persistent and escalating cost of these projects as well as assuring the general thrust of the legislation which is to create more cost sharing by non-Federal interests—across the board.

ALAN K. SIMPSON.

ADDITIONAL VIEWS OF SENATOR BURDICK

While I voted to report S. 1739, I am opposed to title V. I am opposed to users fees on our inland navigation system when they are for the sole purpose of preventing Federal investment in the system beyond a certain arbitrary level, without regard to a means assessment on the users and without regard to our competitive transportation structure.

Title V would impose a cap of $646,000,000 on the Federal investment for construction, rehabilitation, renovation, operation, and maintenance on inland waterways and harbors. Expenditures beyond that level would be paid in total by the users.

From our earliest national history, the Federal Government has been interested in promoting inland waterway transportation. This interest was expressed in grants of public lands for river improvements; Federal purchase of stock in canal companies; declarations in acts governing new territories and admitting new States that navigable waters shall be public highways and forever free; and in the design, construction, and operation of inland navigation features as well as management of navigation systems. Throughout the 19th Century, our canals and river improvements were justified on the grounds of economic development, political unity, and national defense needs. During the 1900's, waterways improvements were to provide a competitive alternative to railroads to prevent large inland areas of the country from becoming captive shippers. Increasingly in recent years, inland navigation improvements have become a component of comprehensive, multipurpose water resource development.

Development of the Upper Great Plains has been particularly tied to the Mississippi River and the deep; water port of Duluth. Around the turn of the century, in many parts of the world the word Minneapolis meant "the place where flour comes from." Moving goods into and out of the region depended then as it does today on an adequately functioning waterway system in competition with the railroads.

Today, our inland waterways move 46 percent of U.S. grain destined for export. Presently, foreign competitors are aggressively threatening the U.S. share of world grain exports, on which the U.S. economy has been heavily dependent.

In all, over 600 million tons of steel, coal, petroleum, sand and gravel and export grain move on the nation's inland and coastal waterways each year. Those commodities represent the foundation upon which our economy is built.

I am concerned that the proposed cap on annual Federal investment in our inland navigation system will lead to more regional competition rather than unity on navigation investments and that economic grounds will be obscured in the decision making process. Also, I believe that if users fees result from the cap, the economic

cost to the Upper Great Plains will be at least double the size of the users fees because the railroads will simply increase their transportation fees in concert. If users fees do not result from the cap, it will be due to a scheduling of investment at less than the most efficient level.

QUENTIN BURDICK.

MINORITY VIEWS OF SENATOR BAUCUS

S. 1739 was introduced by Senator Abdnor on August 3. The new concepts contained in title V of the legislation were not publicly discussed prior to August 3. The Subcommittee on Water Resources held a July 18 hearing on the Administration's inland waterway cost recovery legislation, S. 1554. Water carriers and shippers testified at this hearing, but were not asked to address the concept of a cap on Federal inland navigation expenditures nor on the structure and function of an advisory board. In the absence of a hearing record on title V, I believe it ill-advised to report out legislation which so drastically revises Federal policy.

Proponents of title V argue that the Inland Waterway Users Board would have the authority to control waterway expenditures and the level of user fees. It is my view that the Users Board would function as no more than an advisory board.

Section 504 of title V removes the prohibition against imposition of tolls/fees contained in 33 U.S.C. 5. The Secretary of the Army, in section 502(a) is "authorized to impose, collect, and expend use charges on the commercial users of the inland waterways of the United States to the degree necessary for additional construction, rehabilitation, renovation, operation and maintenance of commercial navigational features and components of the inland waterways and harbors of the United States so they are sufficient to meet the needs of the commercial waterway users, as recommended by the Inland Waterway Users Board . . ."

Section 503(b)(1) states that the Users Board's recommendations shall be submitted to the Secretary and Congress, printed in the Federal Register and transmitted to the President for inclusion with his budget submission for the succeeding fiscal year.

However, there is no guarantee that Congress would not authorize and appropriate levels exceeding the level of the cap. I believe Congress will retain this prerogative to set authorization and appropriation levels and, therefore, should continue to be responsible for structuring and imposing any new user fees.

Section 503(b)(2) expresses the sense of Congress that the Secretary should not obligate funds in excess of levels recommended by the Users Board nor impose user charges in excess of those required to meet such levels of obligation.

In reality, it appears that the authority of the Users Board exists only on paper, The *Treatise on Administrative Law* by Kenneth Davis discusses "Delegation to Private Parties," Section 3:12. This Section cites a number of cases which lead me to believe that a Users Board, as established in the legislation, is unconstitutional, thereby leaving all decisions on spending levels and user fees to the Secretary of the Army.

Included below are several cases cited in the Davis *Treaties* on pages 193–95:

In 1912, the Supreme Court held unconstitutional an ordinance which delegated to two-thirds of certain property owners the power to determine how far buildings should be set back from the street. The reason was that "the property holders who desire and have the authority to establish the line may do so solely for their own interest or even capriciously." Eubank v. City of Richmond, 226 U.S. 137, 144 (1912). The same was equally true in the various cases where the delegations were sustained. In 1917 the Court seemed to be back on the other side, when it sustained an ordinance prohibiting erection of billboards without first securing consent of neighbors; the Court distinguished the 1912 decision by saying that the ordinance there permitted owners to impose restrictions on others but here permitted owners to remove a restriction from the owners. Thomas Cusack Co. v. City of Chicago, 242 U.S. 526 (1917). But in 1928 the Court held unconstitutional an ordinance prohibiting an old people's home in a zoning district without consent of a designated portion of neighbors, State of Washington ex rel. Seattle Title Trust Co. v. Roberage, 278 U.S. 116 (1928).

One of the most important cases in the series was the Carter case of 1936, where the Court held a delegation to producers and miners of coal mining districts of the power to fix maximum hours and minimum wages to be "legislative delegation in its most obnoxious form" because "The power conferred upon the majority is, in effect, the power to regulate the affairs of an unwilling minority. . . . [I] n the very nature of things, one person may not be entrusted with the power to regulate the business of another, and especially of a competitor," Carter v. Carter Coal Co., 298 U.S. 238, 311 (1936). Interestingly enough, the Court cited its 1912 and 1928 cases holding similar delegations unconstitutional, but it did not mention its 1905, 1908 and 1917 decisions holding similar delegations constitutional. In 1939 the Court upheld agriculture regulation that was effective only upon a vote of two-thirds of the growers in favor of it; the Court explained: "Here it is Congress that exercises its legislative authority in making the regulation and in prescribing the conditions of its application. The required favorable vote upon the referendum is one of these conditions." Currin v. Wallace, 306 U.S. 1, 16 (1939). The Court might well have refrained from saying that "the required referendum does not involve any delegation of legislative authority." 306 U.S. at 15.

While Title VI of S. 1739 is quite explicit in establishing fixed percentages of non-federal cost-sharing, Title V is totally speculative as to potential new user fees which would be imposed under its provision. The Corps of Engineers submitted to the Committee, at the request of Senator Burdick, user fees per gallon anticipated under the bill. This information is reprinted below, along with a column listing of the current waterway fuel tax schedule for fiscal years 83-94, and the total fees in cents per gallon.

[Dollar amounts in millions]

Fiscal year	Inland waterway costs	Recovery amount	Waterway ton-miles without new fees (billions) [1]	Waterway ton-miles with New fees (billions) [2]	Equivalent ton-mile fee-cents per gallon [3]	Waterway fuel tax-cents per gallon [4]	Total fee per gallon [5] (cents)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1983	$646	0	222.9	222.9	0	8	8.0
1984	593	0	215.0	215.0	0	8	8.0
1985	640	0	217.1	217.1	0	10	10.0
1986	646	0	219.2	219.2	0	10	10.0
1987	652	6	221.4	221.0	0.95	10	10.9
1988	740	$94	223.6	218.2	15.30	10	25.3
1989	862	216	225.8	213.7	35.40	10	45.4
1990	891	245	228.1	215.7	38.10	10	48.1
1991	832	186	230.4	220.4	29.60	10	39.6
1992	805	159	232.7	224.3	24.70	10	34.7
1993	775	129	235.0	228.2	19.80	10	29.3
1994	736	90	237.2	232.5	13.00	10	23.6

[1] Based on national waterways study, low forecast, annual percentage change adjusted for coastal segments.
[2] Traffic diverted by fee based on elasticity derived from U.S. DOT user charge study (205).
[3] Under S. 1739.
[4] Under Public Law 95–502.
[5] Total of columns 6 and 7.

As stated in footnote (1) in the preceding table, these figures are conservative in terms of costs. Furthermore, Column 5 which indicates diversion of traffic from the waterways with new waterway user fees is understated.

The diversion forecast was extrapolated from the Section 205 Study, submitted to Congress by the Department of Transportation in January 1982. The Study's findings were also cited by committee staff in assessing the impact of higher user charges on affected industries.

In tesimony before the Environment and Public Works Committee on February 10, 1982, Alice Rivlin, then Director of the Congressional Budget Office, made some hypothetical calculations of the impact of a 3 cents increase in user fees. For a family farm producing 400 acres of corn and soybeans each year, this 3 cents increase would reduce gross farm income $900 per year.

Based on these estimates, and looking at the preceding table, it is clear that this bill has the potential for devastating impacts on our farm economy. I believe increased farm exports offer some hope of improvement in our currently depressed farm economy.

The 205 Study has been widely discredited as a biased document which, contrary to its original intent, was a justification for this Administration's legislative initiatives to impose full cost recovery on the waterway industry.

In brief:

—There is no indication that the Department of Agriculture or the Department of Commerce participated in the Study;

—the Study does not measure the impact of user charges on the national economy nor does it indicate whether the benefits in federal budget savings would exceed federal revenue losses stemming from industrial and agricultural location;

—it fails to consider the cumulative impact of different charges on the movement of various commodities. Prospective inland waterway charges and port user fees must be added together

for an understanding of the full impact on sales price on commodities in foreign or domestic markets;

—the Study does not examine changes in the economic relationship among and between regions, and does not tell us which regions will lose and which will gain economically from higher user charges on the inland waterways;

—it does not consider the impact of user charges on family farms, on farm sizes, on farm indebtedness, on farm sales, and other matters of concern to the welfare of the agricultural community.

Nor does the Study take into account the severe economic depression which the waterway operators have been experiencing for the past several years. In fact, during testimony on the 205 Study presented before the House Water Resources Subcommittee March 2, 1982, the Department of Transportation witness stated that the Section 205 Study did not consider the depressed state of the industry (Subcommittee on Water Resources hearings, Document No. 97–74, page 40).

It is readily apparent that the terrific diversion figures in the above table are seriously understated if based on the conclusions of the Section 205 Study.

I have discussed the impact of higher waterway user fees on the agricultural community. In addition, the ability of the barge and towing industry to pass on higher user fees at this time cannot be overlooked. Over one-third of the inland waterways fleet sits idle due to decreased demand for transportation services. The consulting firm of Arthur Anderson recently conducted a study of the 14 largest U.S. inland barge companies. That study showed that in 1980 the aggregate operating profit after interest for these companies was $133 million on $1 billion worth of revenue. In 1982, those figures had collapsed to $3 million in losses on $894 million revenue. And, in 1982, these 14 companies paid a total of $11 million in water user taxes—over one-third of the combined losses.

In closing, I wish to express concerns about the annual cap on federal obligations. The cap should be indexed in some way for inflation and, to be truly reflective of the federal commitment, should not include Inland Waterway Trust Fund receipts. By utilizing these waterway fuel user tax revenues, the will of Congress in enacting Public Law 95–502 is ignored. Section 204(a) of Public Law 95–502 states:

> The amounts in the Trust Fund shall be available, as provided by appropriations acts for making construction and rehabilitation for navigation on the inland and intracoastal waterways of the United States described in section 206 of this Act. . .

Not only would the Trust Fund be used for operations and maintenance purposes, but it would be applicable to waterways not included in Section 206 of Public Law 95–502.

Title V surrenders jurisdiction over revenues for federal inland waterway projects from Congress to the Corps of Engineers. As evidenced by the table above, it is possible to have wide fluctuations in user charges or fees from one year to the next. Unexpected increases in operation and maintenanced costs or unforeseen delays

in the completion of projects will introduce great instability in the year-to-year funding needs of the inland waterway system. This makes it impossibe to assess costs for business planning purposes. If spending levels necessary to meet the construction schedules of newly-authorized projects or unexpected O&M expenses require a significant increase in user charges from one year to the next, what would be the impact on wheat exports? On soybean exports? On coal exports?

These and other unanswered questions preclude my giving full support to S. 1739.

MAX BAUCUS.

CHANGES IN EXISTING LAW

In the opinion of the Committee, it is necessary to dispense with the requirement of section 12 of rule XXVI of the Standing Rules of the Senate in order to expedite the business of the Senate.

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